Trains

25¢

October, 1946

G. Schneiter.

Passengers on the Lotschberg Railroad in Switzerland enjoy an impressive view of the Rhone River Valley as their train crosses the Baltschieder Bridge.

Trains

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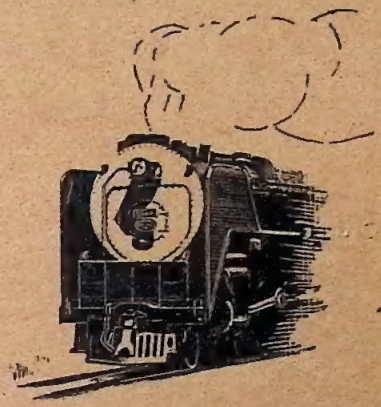

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"The true history of the United States is the history of transportation . . . in which the names of railroad presidents are more significant than those of presidents of the United States." — Philip Guedalla, "The Hundred Years."

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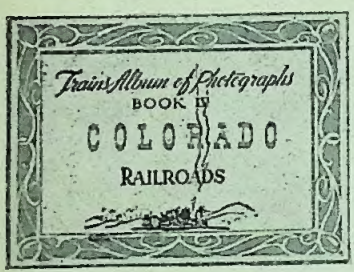
The Finest Railroad Pictures

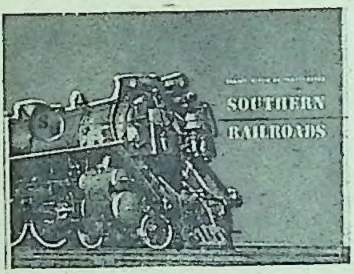
These albums are an entirely new departure in book making, created especially to satisfy the desires of railroad photo fans. The finest photos of the country's leading railroad photographers are gathered into representative collections, each of which tells the story of a railroad or of the railroads of a certain type or section of country. A colorful, factual foreword adds to the story told by photos and captions.

The physical makeup of these albums is radically different. The pages are printed on one side only, to facilitate clipping for scrapbook use or for framing. The attractive plastic binding allows the book to open flat and permits removal of any one page without injury to the remainder of the book. The pages measure 10 x 14 inches and are of highly coated paper. Printed from finest quality plates with special glossy ink, these reproductions are equivalent to the original glossy photographic prints. The heavy paper covers as illustrated on this page are printed in two, three or four colors.



4. Colorado Railroads

Here is a complete review of railroading in the state of small gauges and big mountains and winding canyons. Represented are the D& RGW, D&SL, C&S, RI, MP and Burlington. The grandeur of heavy railroad operations and the picturesqueness of mountain terrain constitute the thrill which alone describes Colorado.

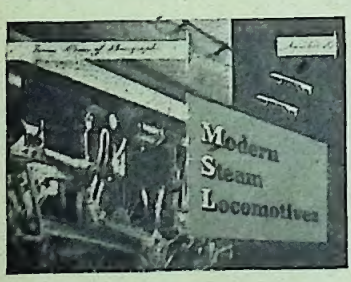


5. Southern Railroads

The scenic wonders of deep-cut gorges, the exciting action of heavy locos barking up steep grades, the fleeting traffic of coal and fruit freighters and passenger trains are covered in the Southern railroads album. SR, C&O, RF&P, N&W, L&N, FEC, GM&O and many smaller roads are shown in vivid, action-packed photos.

6. New England Railroads

The bulk of New England's traffic is carried by the B&A, NH and B&M. These, with smaller lines such as the Bangor & Aroostook, Rutland and Maine Central, set the flavor of the New England roads—heavy industrial loads on short runs and a reputation for unusual neighborliness to the people and companies they serve.



10. Modern Steam Locos

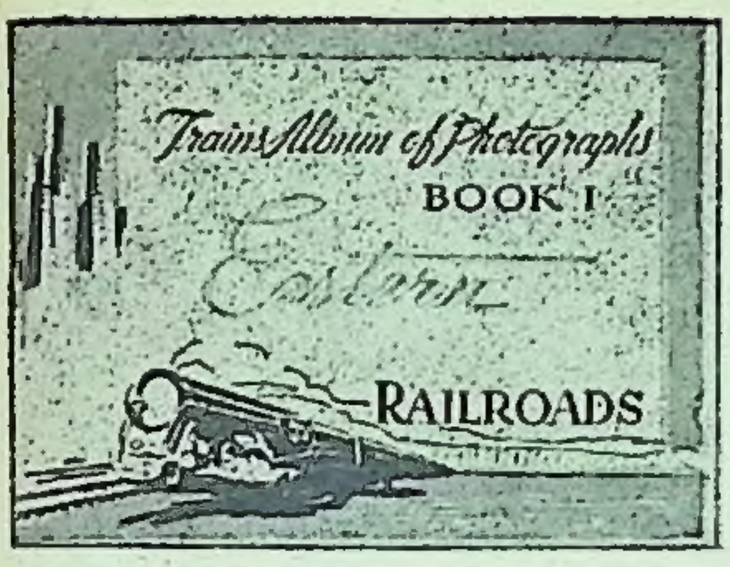
The photographs in this album, all furnished by the builders, were chosen to give a comprehensive picture of the present-day steam locomotive. Included are locomotives of many wheel arrangements and of many railroads, stressing those which have particularly distinguished themselves by perfection of design. Each page has two 14-inch long photos and the principal dimensions of the locos.

11. Southern Pacific Lines

This album is one of the finest collections of beautiful scenic photos. Included are views of the Sierra Nevadas and Cascades, Lucin Cutoff, Huey Long and Suisun Bay bridges, the Oakland Mole Terminal, and a rare 1877 photo of the Secrettown trestle. Among the SP locomotives illustrated are the distinctive cab-ahead articulateds, Lima-built coal burning 2-8-8-4's and the streamlined Daylights.

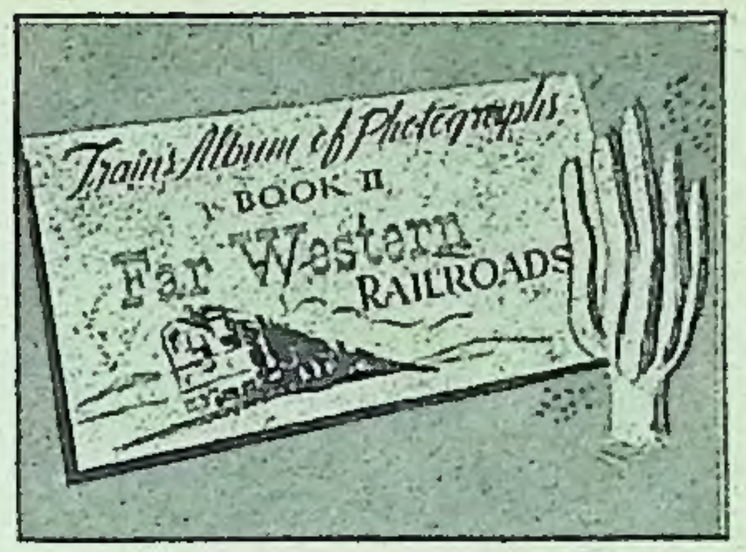
12. Santa Fe Railway

Here are pictured the famed stainless steel Diesel-powered *El Capitan*, *Chief* and *Super Chief*, and the freight traffic of an important transcontinental artery. See the thundering action of Raton and Cajon passes, the scenic splendor of Grand Canyon station, and ride through the lush farmlands of Illinois and the broad wheat fields of Kansas to the beautiful deserts of the Southwest.



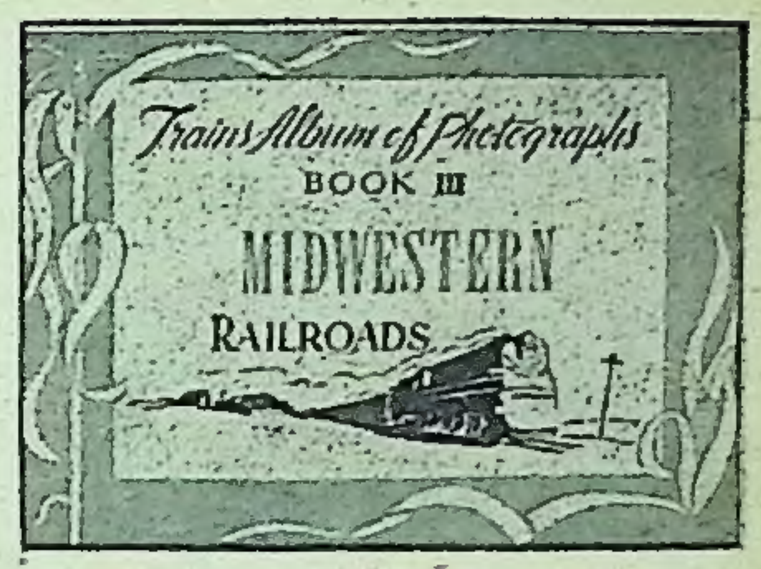
1. Eastern Railroads

Album No. 1 graphically shows the densest railroad traffic in America, that of the Eastern states. It includes photos of such big trunk lines as NYC, B&O, PRR, Erie and of many smaller roads, such as DL&W, B&M, NJC, D&H, NYO&W and Lehigh.



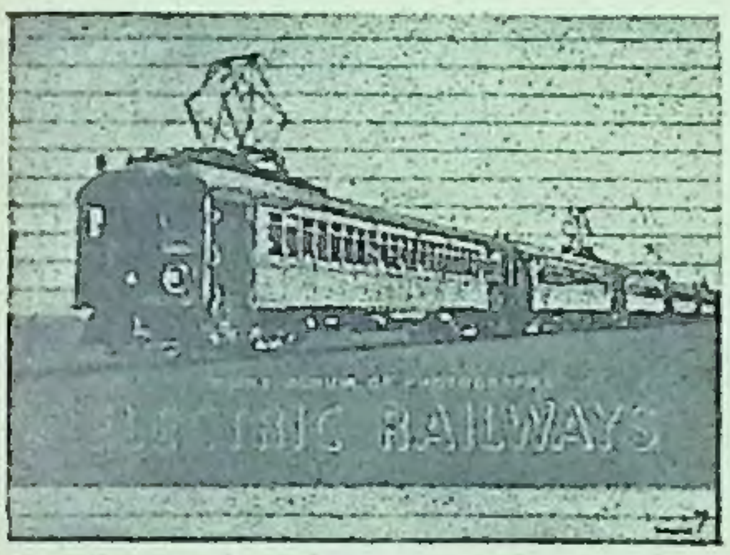
2. Far Western Railroads

Besides illustrating the power which travels over thousands of miles of track in the Pacific and Western states, this album reviews the vastness which typifies the West. Railroads shown include the SP, AT&SF, UP, WP, GN, NP and Milwaukee.



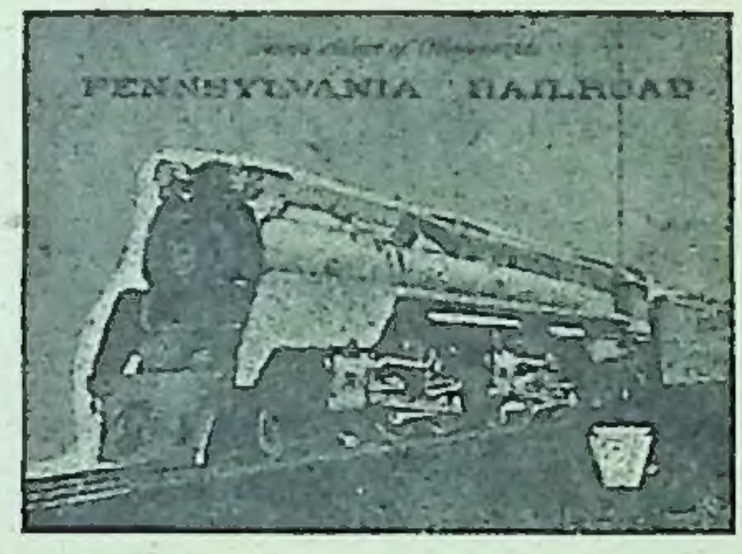
3. Midwestern Railroads

Railroads in the Midwest have a personality all their own. The colorful, graceful trains represented in this album include the record-breaking streamliners *Zephyr*, *Hiawatha*, *"400," Green Diamond*, and typical freights of this area behind Mikados and Northerns.



7. Electric Railways

Album No. 7 shows the contribution made to transportation by electric railroads, both interurban and heavy, old and new. Highlights are the Traction Terminal at Indianapolis in 1904, Milwaukee Road's transcontinental *Olympian*, Pennsylvania's heavy traffic run from New York and numerous typical interurban scenes.



8. Pennsylvania Railroad

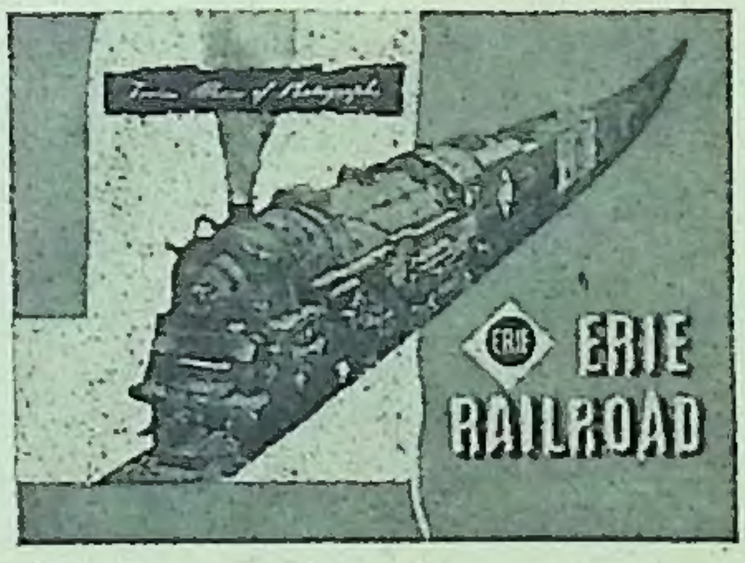
A panorama of the Pennsylvania Railroad, Album No. 8 represents an outstanding array of GG-1, K-4, S-1, T-1, S-2 and M-1a locomotives in action moving the world's heaviest railroad traffic. Many pages are devoted to excellent scenes of the electrified routes, Pennsylvania station, engine terminals and famous Horseshoe Curve.

9. New York Central Railroad

This album is an overall glimpse, in photos, of the NYC—showing in brief the essence of the vast system. Such famed trains as the *Empire State Express*, *Pacemaker* and *Mercury*, along with sleek, greyhound-type Hudson and Mohawk locomotives, are vividly displayed. Also views of Grand Central Terminal and other stations.

13. Baltimore & Ohio Railroad

These photos cannot fully mirror the friendly spirit of America's oldest railroad, but they do show the equipment, historical development and geography which have given it a distinctive personality. Photos include Harpers Ferry, the tunnel under the city of Baltimore, crossing over the Alleghenies, pushers on the 17-Mile Grade, and scenes along the Potomac and in the mountains.



14. Erie Railroad

Album No. 14 covers the development, equipment and territory of the Erie Railroad along lines similar to our preceding volumes. Bringing western fruit to New York and vicinity is the feature hauling job of the Erie, while its suburban trains (with heavy Pacifics as standard power) do an outstanding job in New Jersey.

15. Great Northern Railway

The last in this present series of albums, the Great Northern book, high lights the railway's 8200-mile line; typical coal and oil burning, steam and electric locomotives; the famous *Empire Builder*; and scenic views of the main line through Glacier National Park.

This album is designed and printed in the same manner as its predecessors.

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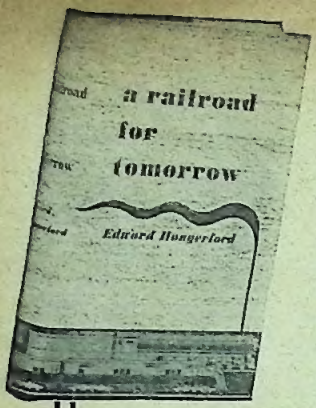

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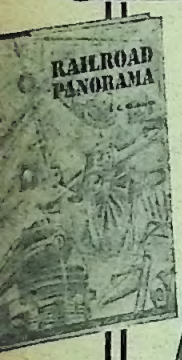

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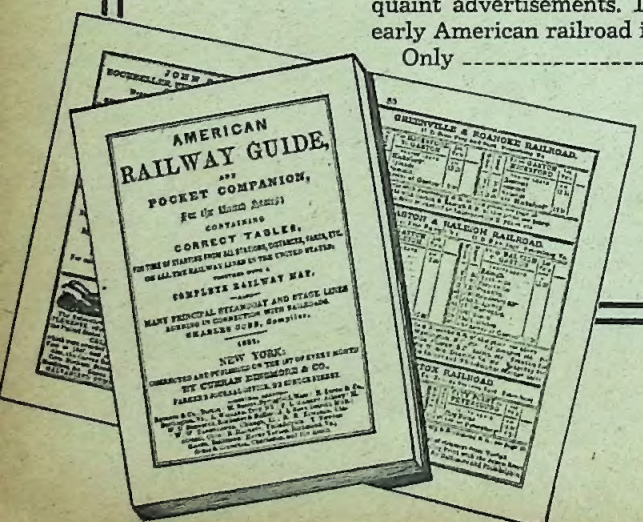

Railroad Avenue

Profusely illustrated with old prints and photos, this book by F. H. Hubbard is one of the most complete and reliable collections of railroad lore. Included are the dramatic stories of Kate Shelley, Jesse James, the Andrew Raiders, "Old 97" and many human stories behind the famous railroad emblems of today. A best seller. ----------**$3.75**

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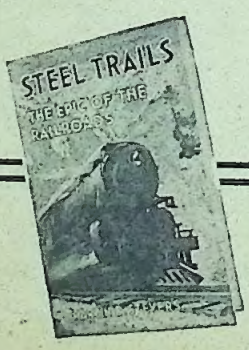

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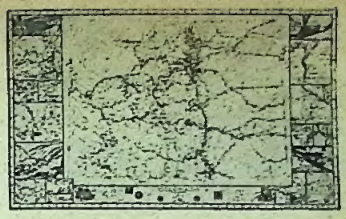

The map showing all the Pennsylvania railroads is 17 x 22 inches, fully indexed and lithographed in three colors on heavy map paper. Lithographed in four colors, the Colorado map shows every railroad that was built in the state and includes 14 sectional maps and brief descriptive remarks. Fully indexed; 38 x 24 inches.

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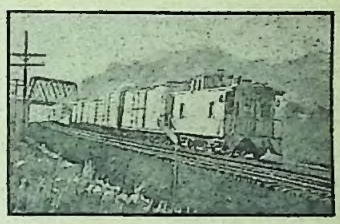

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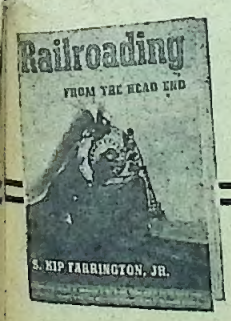

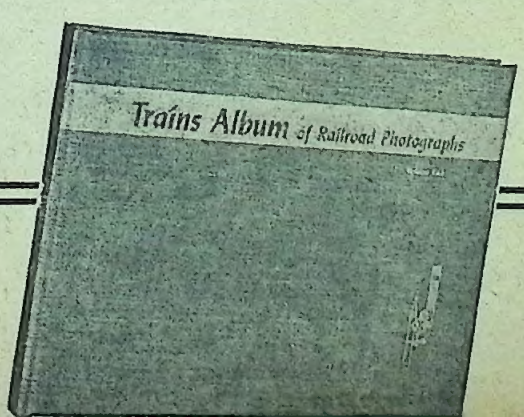

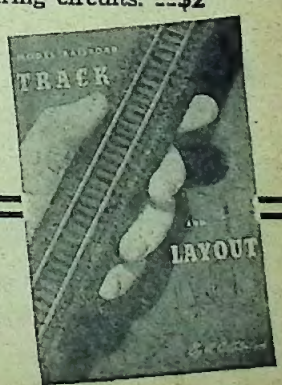

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Dream Railroad in Georgia

What railroad enthusiast hasn't dreamed of starting his own railroad? This is a free country, and it is the inalienable right of each person to build his own railroad — if he can get enough money and if the I. C. C. will let him. But in spite of railfan dreaming few people take advantage of the right. The number of new railroad projects in the United States has dwindled to a point where even an unsupported application to the I. C. C. is big news.

Witness the proposal to build a brand-new railroad from Savannah to Atlanta, Ga. The news that a 229-mile brand-new railroad is contemplated across this portion of Georgia has aroused public interest as it has seldom been aroused since Leonor Loree tried to build his dream railroad across Pennsylvania (June '43 TRAINS). And the I. C. C. has not yet been petitioned.

Man behind the Georgia project is no Loree, but a Philadelphia ticket agent of the Pennsylvania Railroad, E. T. Mitchell, who would rather be president of his own railroad than stand behind the grill and collect dollars for Mr. Clement's railroad. He proposes a high-class, high-speed, Diesel-powered railroad with rock ballasted track, streamlined coaches and fast freight service.

All this would cost $10 million he believes. Sole capital at present is $1500, Mitchell's life savings. The $10 million would be raised by sale of common stock, which Mitchell says would assure the road of never going into receivership since it would have no fixed charges. Apparently he has not yet come face to face with the problem of how to sell $10 million in common stock of a new venture when old established railroads of known earning power do not make enough to keep their common stock up to par.

At any rate the plans go ahead. An attorney has been retained to carry through the legal technicalities of organizing a company, securing S. E. C. permission for securities and I. C. C. certificate of convenience and necessity. Advertising in newspapers along the proposed route has resulted in hundreds of letters of support.

If and when the trains start running they will carry on the letterboards the name Southeastern Line, and they will carry vista domes on the locomotives so passengers can go up front and see the track and signals same as the engineer. An entrancing prospect indeed — if the I. C. C. says "yes" and if the $10 million in common stock can be sold.

Alco Completes Locomotive No. 75,000

The 75,000th locomotive built by the American Locomotive Company has been completed at Schenectady, N. Y., and after a debut party at the Waldorf-Astoria has been delivered to the Santa Fe. It is a new type 6000 horsepower Diesel-electric mainline locomotive. Alco built the first successful Diesel-electric locomotive for United States railroads in 1925, a switcher which still sees daily service on the Central Railroad of New Jersey.

The company's first locomotive, the *Sandusky*, was built at Paterson, N. J., in 1837 and was placed in service a year later on the Mad River & Lake Erie Railroad, running between Belleview and Sandusky, O., a distance of 16 miles.

The 50,000th, a Pacific type locomotive, was delivered to the Erie Railroad in 1911. At the time this was the largest Pacific type ever built. No. 50,000 is still in service on an Erie commuter run between Jersey City and Tuxedo, N. J. The railroad recently considered scrapping it, but commuters who had grown fond of the old locomotive made such a vigorous protest that it will be continued in service after a complete overhaul.

New NYC Coaches in Service

The New York Central has just taken delivery of 153 new coaches, the largest number of new passenger cars ever delivered to one railroad within a year's time. They were built by Pullman-Standard and are part of the NYC's postwar orders which total 720 new passenger cars of all types. Already the new cars are in service in various standard trains as well as the *Empire State* and the *Pacemaker*.

The exterior has fluted stainless steel sheathing. The seats are reclining, with adjustable footrests, and the windows are the two-seat wide picture type. Reproductions of 400 of the world's greatest paintings have been selected for display, one on each end of each car, in the new NYC fleet.

A cross section of traveler opinion, obtained by a survey during the war, helped in the design of the new equipment.

Streamliners Daily to Coast

The Santa Fe now has the first daily 39¾ hour schedules between Chicago and the coast with a new arrangement whereby its two streamliners each run every other day, the *Super Chief* on even numbered days of the month and *El Capitan* on odd numbered days, except the 31st. The *Super Chief* continues to be an all-room Pullman train and *El Capitan* an all-coach train. Since the Santa Fe has not yet received any of its postwar passenger cars, it has reassigned its most modern prewar streamlined cars to make possible the new service. Formerly both trains ran twice weekly. Additional postwar Diesel passenger locomotives are already in use on this service as well as other through passenger trains which had formerly used steam power.

Union Pacific promptly met the new schedules by putting its *City of Los Angeles* and *City of San Francisco* on an every other day, except Sunday, basis. These trains now alternate, giving daily service as far west as Ogden, with both coach and Pullman service through to Los Angeles Mondays, Wednesdays and Fridays and to San Francisco on the alternate days. Portland service also has increased.

New Equipment

Northern Pacific now expects its cars for the new *North Coast Limiteds* by the first quarter of 1947. Each train will include streamlined coaches, coach-lounge, sleeping cars, dining car and mail and baggage equipment and will be powered by a 4500 horsepower Diesel. Running time between Chicago and Seattle will be about 45 hours. . . . Erie Railroad will inaugurate streamlined passenger

Here is the interior of one of the first postwar dining cars, and it looks indeed like a reasonable facsimile of all those colorful advertising illustrations of what we might look forward to when the war was won. Diagonal tables, waitresses and all, it runs on the Pere Marquette Detroit-Grand Rapids streamliners.

trains early next year when delivery of seven new all-room sleeping cars is expected. These trains will be Diesel powered and will include modernized coaches.

New Transcontinental Train

The Rock Island and Southern Pacific have started a new transcontinental train, the *Imperial*, via their Golden State Route between Chicago and Los Angeles. It is on a 52¾ hour schedule with leaving and arrival times at midday at both terminals. The heavy travel this summer, normally off season for West Coast trains, convinced the roads that an entire extra regular schedule should be added to take care of the heavier fall and winter season travel.

The name comes from the lush Imperial Valley which the route crosses in Southern California. West of Yuma the *Imperial* is routed over the line through Calexico and El Centro and dips into Mexico for a short distance.

Santa Fe Into St. Louis?

The Santa Fe's application to buy the Alton's Kansas City line from the Gulf, Mobile & Ohio and to use it in connection with the Burlington for an entrance into St. Louis has encountered much opposition from other railroads entering St. Louis from the southwest. The Missouri Pacific, Frisco and Rock Island, which not only carry through southwest freight but also handle much Kansas City-St. Louis business, are heading the opposition.

Formal application for the St. Louis extension was filed with the I. C. C. in June. Hearings will take into account not only the interests of competitors and whether the change would adversely affect their service, but also shippers, chambers of commerce and other parties interested in the service.

Start to Build First Sleeping Cars Since War

Construction of the first railroad sleeping cars to be made since carbuilding was halted by the war in 1942 is now under way on the assembly lines of the Pullman-Standard Car Manufacturing Company. The new cars are part of a lot of 25 sleepers of modern design for the *Empire Builder* trains going into service late this year between Chicago, the Twin Cities and the Pacific Northwest. Four of the trains are being purchased by Great Northern Railway and one by the Burlington, which operates Great Northern trains between Chicago and St. Paul.

The equipment will incorporate a wide variety of sleeping accommodations featuring largely the single occupancy roomette design. Twenty of the cars will be all-sleeper, while five will be a combination of sleeping facilities with buffet-lounge-observation ends.

The exterior coloring of the cars will be alternating broad bands of olive green and deep orange. The roof and letterboard to just above the windows will be olive green, the window band will be deep orange running the length of the car and just below the windows will be a broad band of olive green. Another band of deep orange will finish off the bottom of the sides and the car skirts will be olive green. These color bands will be separated by narrow stripes of synthetic gold and lettering will be synthetic gold on the olive green. The same coloring is being used on the 35 coaches, diners and utility cars, now in more advanced stages of production at the Pullman works, which will go to make up the five complete 12-car trains.

Diesels Take Over Hoosac Tunnel Operation

The long expected abandonment of the Boston & Maine's Hoosac Tunnel electrification came August 24 when Diesel power took over completely the operation of the main line west of Greenfield, Mass., and crews started to remove the overhead wires and other electrification apparatus. The steam locomotive has now passed completely from the west end of the road.

The railroad's tunnel, started in 1851 and completed in 1875 at a cost of $14 million, went through its first 36 years of operation with steam locomotives hauling trains

We have just obtained additional coated paper stock so that with the next issue TRAINS *can return to its customary high quality photographic reproduction. We regard as practically a calamity the fact that we were forced to use inferior paper for two months, but we felt a magazine on pulp paper was better than none. Shortage of high-quality paper is more severe now than during the war, and there is no improvement in sight for the immediate future.*

through it. With the increased number of trains and the advent of powerful locomotives, smoke and gas elimination became a problem and the tunnel was electrified in 1911. Since that time the big electric engines have been attached in front of the steam locomotives at North Adams, Mass., and at the east portal, to haul both locomotive and train through the bore.

Locomotive Notes

The last of 1207 steam locomotives assembled at Portland, Ore., for the Soviet Union was shipped last month. . . . The Erie expects all its through main line Chicago-Jersey City passenger trains to be Diesel powered by next spring after delivery of seven 4500 horsepower locomotives. Three 6000 horsepower freight Diesels have been ordered to supplement the six 5400's in service between Marion, O., and Salamanca, N. Y. Fifteen Diesel switchers are also on order. Eight new Diesel road locomotives are being broken in on the Central of Georgia; seven on through Chicago-Florida trains and the other on the Atlanta-Savannah run which will be streamlined this fall when new coaches arrive. . . . Kansas City Southern has ordered five 6000 horsepower freight locomotives, two 3000 horsepower passenger locomotives and 12 1000 horsepower switchers from Electro-Motive, and one 4-unit 8000 horsepower freight locomotive from Fairbanks-Morse. This last, the largest Diesel to date, will be used in the mountainous section of road between Pittsburg, Kan., and DeQueen, Ark.

Tickets on Credit

More than 20,000 business firms are being polled to determine which of three proposed railroad credit plans will best meet the demands of business concerns and their representatives. The committee conducting the poll represents all passenger-carrying railroads in the United States.

"Our purpose is to simplify the purchase of tickets by eliminating the 'cash-and-carry' aspects of ticket buying," said H. W. Siddall, chairman of the committee. "The present system works very well for individual travelers, but we believe a more convenient plan can be worked out for business travel. Any of the proposed plans will make it unnecessary for the traveler to pay cash for his railroad tickets."

The three plans are:

Plan A — Traveler accredited by a business firm carries an identification card which bears a plate similar to department store credit plates. When he purchases tickets, the ticket agent imprints the plate upon a check or draft form, and the traveler signs it. It then clears through normal commercial credit channels without charge.

Plan B — Traveler carries a supply of checks similar to conventional travelers' checks. When issued, these are signed by a company official and the traveler. When tickets are purchased, the traveler countersigns the checks, which provides identification and protection against forgery. These checks also clear through normal banking channels without charge.

Plan C — This plan operates through the Commercial Travel Credit System of Chicago, an organization in which the railroads have no interest. Traveler carries a block of unsigned drafts and an identification card. When tickets are purchased, they are paid for with one of the drafts made out and signed by the traveler. Ticket agent confirms signature by comparison with identification card. The Commercial Travel Credit System pays the railroads and bills participating companies.

Mr. Siddall said that after results of the poll have been studied, definite plans for a new system for buying rail transportation will be developed.

Odds and Ends

Western roads have removed the wartime restrictions on step-ups of coach tickets to first class, and passengers en route can now change to a sleeper or a parlor car on payment of the difference to the conductor together with the charge for space occupied. . . . The Central Railroad of Pennsylvania is now formally operating the former lines of Central of New Jersey in Pennsylvania. It is a wholly owned subsidiary. . . . Florida East Coast is engaged in a $10 million postwar improvement program, including 112 pound rail for the main line, a new 30-mile cutoff from the Lake Okeechobee vegetable district, rebuilding of bridges, purchase of new rolling stock and improved signaling.

Troop movements on the railroads are decreasing substantially, and since last December have declined 77 per cent, the A. A. R. has disclosed. Largely because of the drop in military movements, total passenger traffic is down, with July passenger miles about 30 per cent less than the same month in 1945. . . . The B&O set an all-time system record for coal loading on September 3 when 4897 cars were loaded. This tops the previous record by 608 cars. Almost 42,000 of B&O's 90,000 cars are for coal service, and 4000 more coal hoppers are on order. . . . One of the most potent causes of the current freight car scarcity is the return of industry to the five-day week. Lack of week-end loading and unloading increases the average turnaround time per car.

Railroad Reading Matter

Probably the first book of railway verse to appear within two decades is "Locomotive Puffs from the Back Shop," by Leon R. Harris. Harris, a former shopman, tells about his work in this 56-page volume just published by Bruce Humphries, Inc., Boston, Mass., $2.

Railroad Land Grants Not a Christmas Gift

The common belief that railroads still enjoy a regular Christmas gift from the land grants extended by the Federal government in the early days of railroad construction was refuted recently in a talk by Stephen Early, former White House secretary and now vice-president of Pullman, Inc.

"Of the total railroad mileage in the U. S. today only eight per cent was built on land-grant property," he said. "When granted, this property was actually valued at a total of $125 million. In return the railroads contracted to transport government troops and property — *for all time* — at rates far below the standard. The result is that against its original grants of $125 million, the U. S. up to the end of 1944, had received in repayment more than $1 billion in reduced fares and rates. The reduced land grant rates have only now been repealed, after the railroads had paid for the lands many times over.

"It has not always been easy going for the railroads but they have stood the gaff. Despite constantly mounting costs of operation,

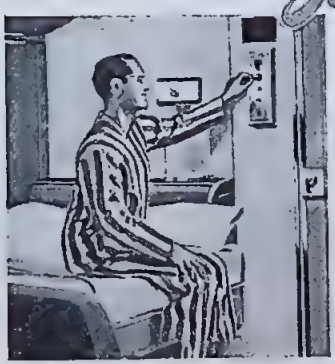
Up to Hoosac Tunnel

Steam locomotives no longer form this classic scene on Boston & Maine trains in the valley of the Deerfield River, for Diesels have taken over all operation on the Hoosac Tunnel route. This photo was taken two miles east of Hoosac East Portal by J. P. Ahrens, Danbury, Conn.

Supplement facing page 11
TRAINS, *October 1946*

Since the end of the war we have been able to make further improvement in the special process used for reproducing the Trains series of railroad photo albums, and this month for the first time we are able to include photos by this process as an extra feature in this magazine. You may wish to remove the photos for framing. We expect to include these supplements as regularly as paper permits.

We've got your SLUMBER NUMBER on the Water Level Route



Is Climate your No. 1 slumber need?

For sound, refreshing sleep, do you like nights mild as spring or brisk as autumn? Choose your own ideal slumber climate. A twist of your wrist controls the temperature of the clean, fresh, conditioned air in your New York Central room.

Does Privacy rate first with you?

Your room has complete toilet facilities... so take your time preparing for bed or getting ready for breakfast. Your room assures quiet privacy... so turn in early if you wish... and take your fill, too, of early morning sleep.

Or is your Bed most important?

Do you need a roomy, perfectly-made bed... with downy pillows, soft sheets and fluffy blankets tucked in around a mattress that's like a lullaby itself? You get them all... plus the gentlest of trips on the smooth Water Level Route.

Coming! 30 New Dreamliners!

Central has ordered enough all-room sleeping cars for 30 new overnight *dreamliners!* Each has many *new* features, *plus* all the luxuries of the modern cars that now carry you swiftly, safely, with all-weather dependability over the *Water Level Route.*

NEW YORK CENTRAL

The Water Level Route
...You Can Sleep

© 1946, New York Central Railroad Company

Gulf, Mobile & Ohio is well along on its program of Dieselization with delivery of 22 1500 horsepower units, as shown above, from Alco. They are in service between Mobile and St. Louis. Photo was taken near Alco plant in Schenectady.

service has constantly improved in quality and safety — and at a reduction in cost to the user. The average cost of carrying a passenger in 1921 was 64 per cent more than in 1943. The average charge for hauling freight in 1921 was 37 per cent above 1943. Today American railroad freight is moving at an average cost of less than one cent a ton mile.

"The answer is capable management and greater efficiency. Research by the railroads has rivaled that of any branch of industry."

Trains Too Fast!

The high speeds of modern trains aren't pleasing to all people. Herb Weisberger tells the story of a crochety old lady who boarded the *Hiawatha* at Milwaukee. After the train was four or five miles out of town and was rolling along at about 50 miles per hour, this woman collared the porter in the aisle and complained about the excessive speed. He looked at her for a moment and then broke out into a laugh and said, "Ma'am, we ain't even started to move yet." Herb says you should have seen the lady all the way into Chicago. She pulled the shade down and gripped the arm of her seat like a vise. If she had watched the scenery as the train went through Sturtevant at 100 miles per hour, she'd have died!

Ray Miller, ex-trainmaster of the Chicago-Milwaukee Division in Milwaukee, tells his own favorite story on the same subject. An old customer collared him in the station one day and complained, "Ray, there aren't any comfortable trains between Chicago and Milwaukee any more. It used to be you could take 2 hours 15 minutes for the ride and get in a nice snooze, but now you whisk us down in 75 minutes and, my gosh, a fellow can hardly close his eyes before he's at the other end of the line. It's sort of like taking a street car down town."

Anti-Inflation

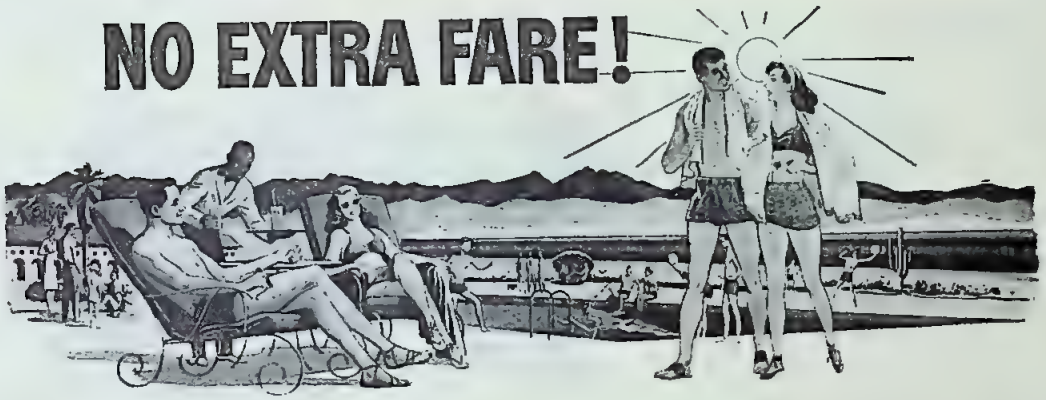
Our remarks about the railroad wage dispute have caused many shouts of "antilabor" from the gallery. TRAINS is not antilabor. It is anti-inflation. We believe that a standard of living is measured not in wages but in what those wages will buy. We believe that no amount of money will purchase something before it is produced. And we believe that the only way all of us will get more of what we want is not by larger pay checks (and consequently larger prices) but by more production and more efficient production.

A. C. Kalmbach.

NOW! FASTEST IN HISTORY

Golden State Limited to Arizona·California

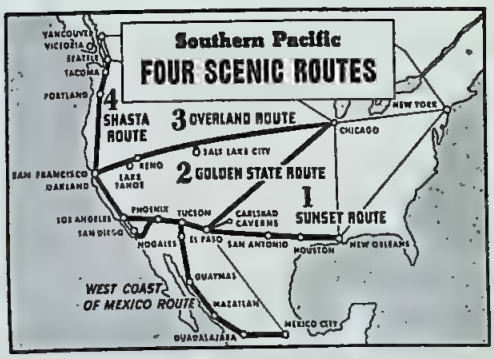
NO EXTRA FARE!



When you're planning your winter vacation this year, please remember that Southern Pacific now offers the finest, fastest train service in our history to Arizona and California.

The *Golden State Limited*, with all streamlined Pullmans and chair cars, streaks from Chicago to Tucson in only 37¾ hours, to Phoenix in 40½ hours, and to Los Angeles in 49¼ hours. No extra fare. This beautiful train also carries a through streamlined Pullman from New York to the Coast.

The *Sunset Limited* makes the run from New Orleans to Tucson and Phoenix in a day and a half; to Los Angeles in only 48 hours. No extra fare. Fast, luxurious daily trains from principal eastern cities connect with the *Sunset Limited* at New Orleans.



S·P

The friendly Southern Pacific

These two swift trains, together with other fine Southern Pacific trains over the Golden State and Sunset Routes, give you the *only* main line train service direct to Phoenix, Tucson and other resort and guest ranch centers in Southern Arizona.

Incidentally, in planning your winter vacation, may we remind you that December to February are the peak months of the winter travel season. Most resorts, however, are open from October until late spring. To insure getting the train and resort reservations you want, if possible try to take your trip during the less crowded months.

For information about Southern Arizona guest ranches, Palm Springs, California or other western winter playgrounds, just fill out and mail us the coupon below.

MAIL THIS COUPON TODAY

D. J. McGANNEY
Dept. TS-10, 310 S. Michigan Ave., Chicago 4
Please send me the booklet I have checked.

( ) Guide Book, "How to See Twice as Much on Your Trip to California" ( ) Palm Springs

Name.....

Address.....

City & Zone.....State.....

We're expecting twins . . .

THE WHIPPOORWILL
and THE MEADOWLARK

Two New C & E I CHICAGO-liners

Just over the horizon . . . two of the fastest and best postwar trains for daytime travel are scheduled for their initial "flight" over C & E I lines. The most advanced features in modern car design have been incorporated in the construction of these fast, new streamliners. They'll be Diesel powered too.

The *WHIPPOORWILL* is scheduled for a round trip daily between Chicago and Evansville, Indiana; the *MEADOWLARK* between Chicago and Southern Illinois.

Modernization of C & E I right-of-ways, shops, yards, stations and terminal facilities is well under way to provide our passengers with the *finest* and *safest* in modern rail transportation.

Midwestern travelers, you've a wonderful new experience coming, in the riding—"gliding"—comfort of these new trains. They'll be smoother . . . quieter . . . more spacious. *Faster* and *safer,* too.

CHICAGO & EASTERN ILLINOIS *railroad*

The Chicago Line

Chicago-New York Electric Air Line Railroad

Dream route of 1906 had ambitious plans but failed to reach either of its terminals

BY MARY CRANE*

Chicago to New York in 10 hours! That is what President A. C. Miller of the Chicago-New York Electric Air Line Railroad promised in 1906, hey-day of the electric interurban. His double-track speedway would cut straight across four states, span valleys on high fills, cross streams on lofty viaducts, penetrate hills through deep cuts and tunnel through the mountains of Pennsylvania, reducing the distance between America's two greatest cities to 750 miles. Streamlined electric locomotives would average 75 miles per hour over the arrow-straight track with a maximum gradient of one-half of one per cent, and without grade crossings. The cost of building this superrailroad would be covered many times by its certain popularity, Miller told the hopeful stockholders.

Eight years later the Air Line was a 19.6-mile stretch between La Porte and Goodrum, Ind., part of a little network of interurban lines. At this rate of construction it would have taken about 112 years to complete the entire 750-mile line to New York. The coaches still read *New York* on one end, *Chicago* on the other, although neither city had been reached; but somehow the plan had changed. The directors explained that the first division of 100 miles, with branches going to near-by communities, must be built up to pay for further construction. The first division was never finished, however, for the branches became more important than the Air Line. By 1914 the road was in receivership. Disappointed stockholders are still speculating whether the plan was a well-organized hoax, an expensive dream, or an exciting idea that might have worked under better management.

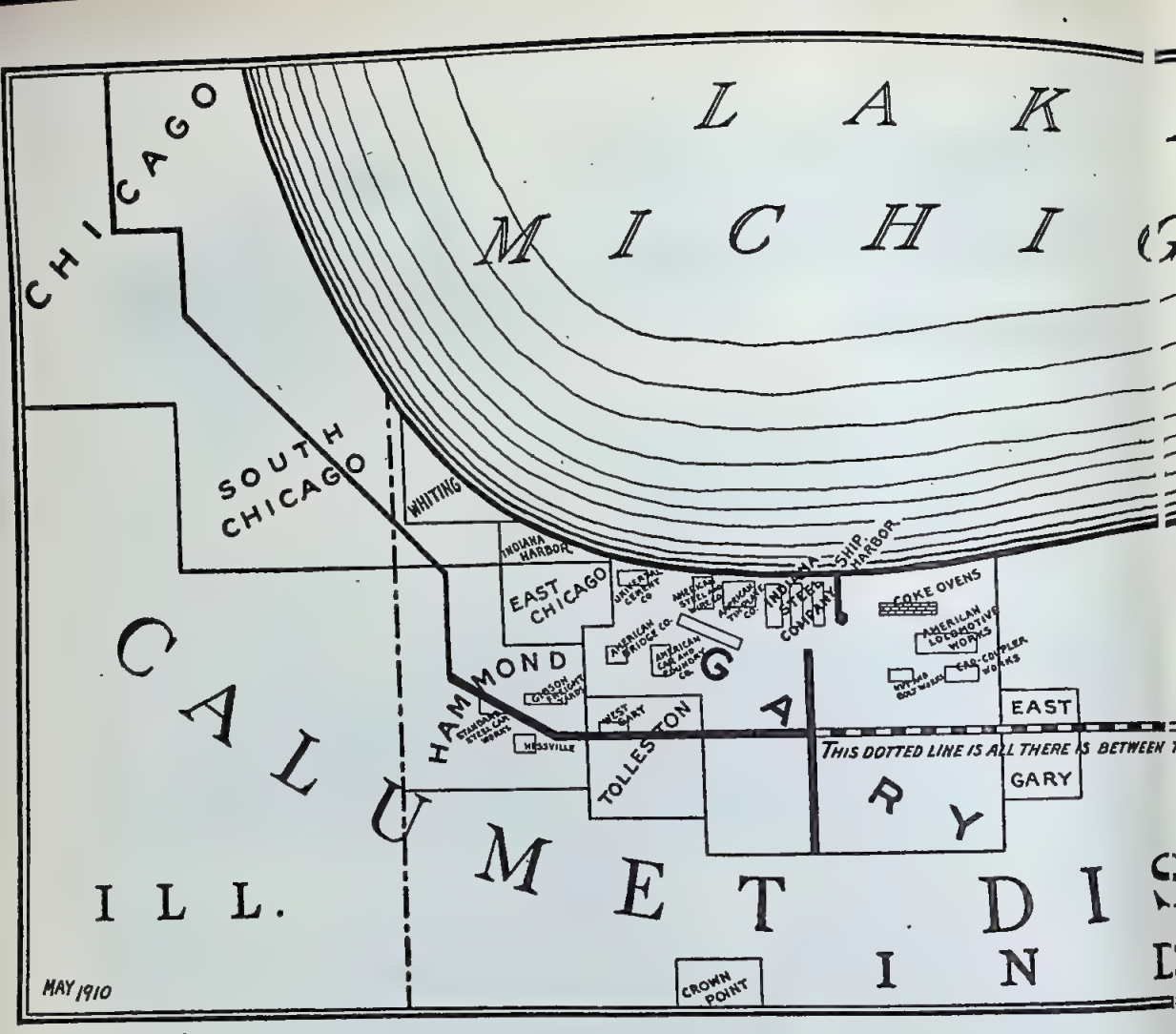
The Chicago-New York Electric Air Line Railroad was incorporated in August, 1905, under the laws of Maine with $200 million capital stock, of which $25 million was issued in common stock immediately. Before the project was abandoned, some 10,000 persons had invested in it. Brains and boss of the undertaking was a banker, Alexander C. Miller, who was for 20 years an important figure in the Burlington Railroad's operating department at Aurora, Ill. Miller said he got the idea for a short, straight line to New York while riding on a train. On a trip from New York he noticed that, after traveling for three hours on a fast through train, he was farther from Chicago than when he started.

After considering his idea carefully, he broached the subject to his friend Jonathon D. Price, a signal construction engineer. The two realized that it would be folly to approach bankers with the idea, for the banks were already interested in existing railroads to which the Air Line would present serious competition. They decided to deal directly with the public for their financing. The first advertisement appeared in the newspapers July 8, 1906, and a startled public began discussing the fantastic project.

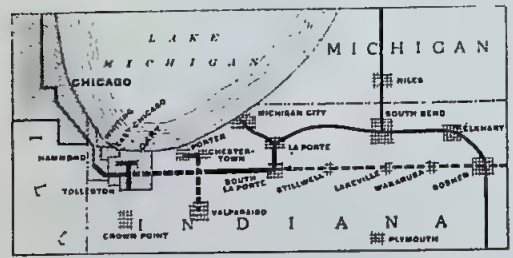
Remember, this was 1906, when electric motive power was just coming into its own. Fast interurban trolleys were reaching out for business. They were acquiring large express and freight loadings in addition to their passenger traffic, and even had a few mail contracts. Sleepers and diners were part of their equipment.

Since the C-NYEALRR had a definitely pre-

* We are indebted to E. Jay Quinby, president, Electric Railroaders' Association, who contributed much of the text, and to Frank Korten for use of rare illustrative material from his collection.



"This dotted line is all there is between the Air Line and dividends," proclaimed the promotional map above. Another map published extensively is reproduced below, together with the caption which appeared with it. Geographically correct map of route is printed on page 19.

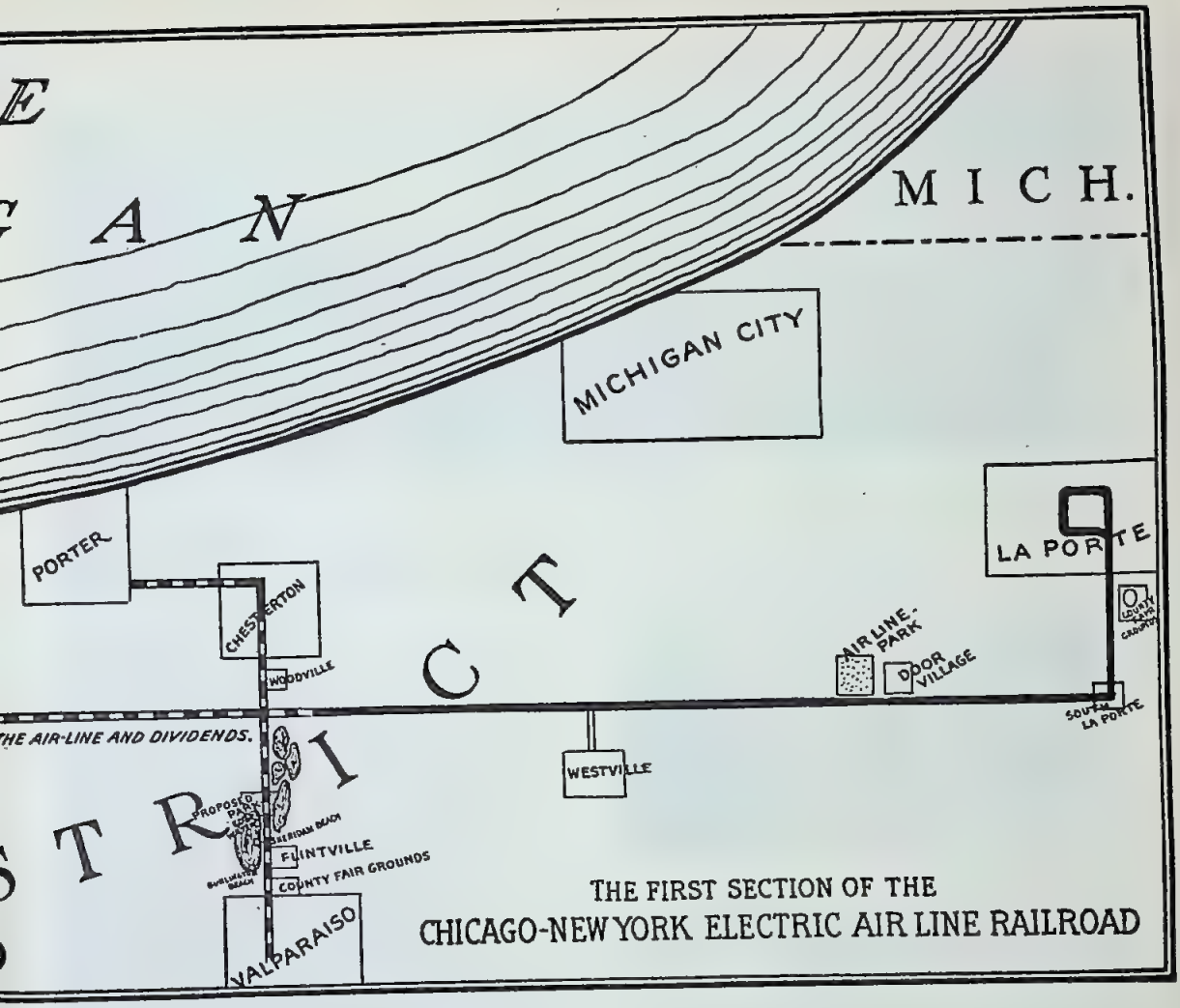


The investing public is asked to make a careful study of the above condensed map, and of the great opportunity which is outlined in these pages. The map will give a clear conception of an interurban Railway system which is being created by the Co-Operative Construction Company in the best transportation field in America. Completed parts of this system are shown by heavy lines. The Co-Operative Construction Company has other parts under construction and nearly completed, indicated by heavy dotted lines. The lighter lines show connecting interurbans now in operation in this chain of railroads, which will reach from the heart of Chicago, through the marvelous Calumet district and throughout Northern Indiana. The lighter lines indicate future extensions to the greater work of building up a most valuable railroad, an electric trunk line, connecting Chicago with New York.

Note the strategic position of the system with reference to Gary, Hammond and Chicago, making it the natural highway to the metropolis for every electric railway seeking entrance from the east, southeast and north, and certain of a most profitable business

established course, advertised to be built on a straight line, the right-of-way agent, Colonel U. P. Hord, had a difficult task. It might have been a simple matter for property holders along the route to hold out for their own prices. But the colonel, with broad-brimmed beige campaign hat, knee-length tight-waisted coat and ascot tie, cut an affluent figure and talked just as impressively. The colonel usually left a farm carrying an option on a 100-foot-wide strip of land through the farm, while the farmer had some stock certificates. Now the farmer had become a partner in the Air Line business, and to demand too high a price for his land would be to encourage the next farmer to demand equally high prices.

Sometimes the colonel even came away with a pocketful of money for a few extra shares in the enterprise. Towns and cities along the way offered a right of way and franchise if only the railroad would consent to serve them. The



colonel let them in — with a benign gesture and a magnificent flourish of his pen.

The Co-operative Construction Company undertook to build the railroad, furnishing construction equipment, purchasing materials, hiring labor and supervising the work. In return for this it accepted blocks of Air Line stock as payment and undertook to sell this stock through representatives in various cities throughout the country. Since it had no other source of income, the company was dependent upon sales of Air Line stock to keep the construction work going.

The Indiana turf was broken a few miles south of La Porte in September, 1906. The *Air Line News*, a monthly bulletin edited by Charles P. Burton, spread the news to prospective stockholders. The copy in this incredibly persuasive publication managed to turn every setback into a blessing. Photos and maps pointed out the progress made in construction, even when there was little progress to report. The editor, Air Line President Miller, President Price of the Co-operative Construction Company, and Superintendent of Construction Mapledoram, all wrote words of cheer and encouragement to stockholders. The paper also published enthusiastic letters from fellow stockholders who had actually visited the property and seen the work in progress. A question and answer column explained details about investments. The *Air Line News* filled its front pages with announcements like these:

"A trainload of steel rails has just arrived and been unloaded; a concrete mixer has been purchased and is already turning out material for the abutments of the big bridge over the Pere Marquette Railroad. Steel girders for this big bridge and for the next one over the Monon Railroad have been delivered; a switch has been installed on the Pere Marquette with a siding for the Air Line's own material yard. A con-

Work on the Air Line was pushed whenever funds were available. Above, a work train in winter. Below, a deep cut west of South La Porte illustrates the straight, level character of the route. Construction camp at left.

Strong enough for the heaviest steam traffic was this bridge over the Pere Marquette Railway near South La Porte (below). The Air Line's ambitious plans did not allow waiting time for other trains at grade crossings.

The trestle south of Chesterton, Ind., approaching Coffey Creek (below), about 15 miles from Gary. Timber used in its construction was cut from the Air Line's own woods. It was then buried to make a huge fill.

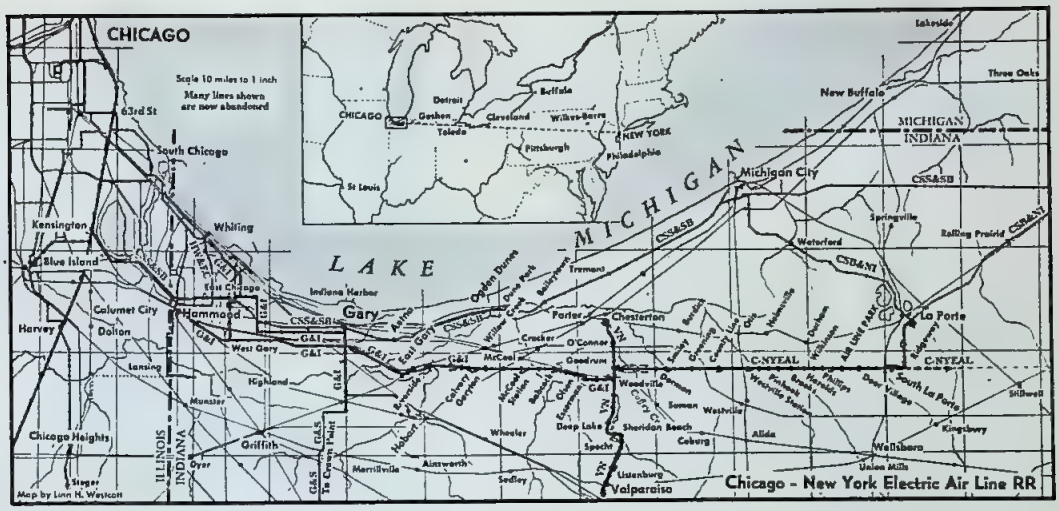
Map on opposite page shows proposed route of the Chicago-New York Electric Air Line Railroad and the portions actually built. The line was to have shortened rail mileage between Chicago and New York to less than 750 miles.

struction train comprising a steam locomotive and a string of automatic dump cars is at work on this track. A huge Vulcan steam shovel is already on the job, taking big bites out of hills that stand in the path of the straight and level speedway that is to be the Air Line."

Thus the *Air Line News* dramatized the building of the railroad. Stockholders proudly displayed each evidence of progress to their friends, who were likely to clip out application coupons from the back pages and send in remittances for Air Line stock. One issue contained articles in German, Italian, Greek and Polish in this vein: "The Electric Air Line Railroad represents the great opportunity to make money of which you dreamed in your native land."

When the profits originally predicted within one year failed to materialize for two, three or four years, Editor Burton not only could justify the delay, but induced investors to put up more money to protect what they had already contributed. By publishing letters of criticism along with letters of endorsement, he masterfully allowed impatient stockholders to answer each other in the controversy over why the venture was not paying.

The Air Line's two tracks were to be on 14-foot centers astride the center line of the 100-foot-wide right of way. The north track (eventually to be used as the westbound track) was built first to take care of two-way traffic until business warranted building the other one. Where the Air Line crossed over intersecting steam railroad lines, tall massive concrete abutments supported heavy steel bridges high enough to clear men on top of the steam rail-



roads' freight trains. These were designed to meet Cooper's E-50 loading table, very sturdy for 1907. The Air Line's 85-pound steel rail, spiked to white oak ties from Tennessee, proved a splendid track for heavy-duty, high-speed operations. Every sixth tie was a long one because the railroad planned to install underrunning third rail, but temporary poles with steel bracket construction suspended a trolley wire in the beginning.

From the very first construction costs were high. It was necessary to build inclined embankments a mile long in both directions to carry the line over intersecting steam railroads if 26-foot clearance were to be accomplished with a maximum gradient of one-half of one per cent. Three such intersections were built in the first 15 miles west of La Porte, over the Pere Marquette, Monon and Wabash. Also, many natural gulleys and valleys had to be crossed on fills, with the result that the Air Line was "up in the air" for much of its length. Highways were carried across either on bridges or under the Air Line through concrete arches.

By April, 1907, four construction camps were operating along the line. At each camp, work was pushed both east and west with the idea of closing the intervening gaps in a stretch of 15 miles. The biggest job undertaken was the fill across Coffey Creek Bottoms, which was to extend nearly two miles, west of Camp 4. A temporary trestle here, 50 feet high at its tallest point, carried construction trains out to dump their fill. Drawn by saddle-tank locomotives from a 30-foot cut to the east, two such trains took turns running out on the trestle and dumping fill. After one complete lift was taken out of the hill, the portable track would be moved and another lift begun. The Coffey Creek fill, while only 30 feet wide at the top, measured 180 feet in width at the bottom after the earth assumed its natural incline. A million feet of timber formed the temporary trestle which would eventually be buried within the fill. The promoters of the Air Line probably felt it would be an admission of error in their fundamental policy to accept a larger or curved grade so early in the construction of the railroad that claimed to be straight and level. So they stuck to their specifications and the construction work stuck at Coffey Creek. Good progress was made in the first year in spite of difficulties. One could stand between the rails, gaze along them toward the horizon and see them meet in the distance without the slightest deviation from a straight line. On June 15, 1907, service was inaugurated over the five-mile branch from La Porte to South La Porte. Investors of record and many prospective stockholders visited the property and gained inspiration from riding back and forth on the short branch.

The cars they rode in were two big green interurbans, Nos. 101 and 102, built to order by the Niles Car Works. They were 50-foot combination baggage-passenger coaches with steam-type roofs, sturdy wooden pilots and windows grouped in pairs with stained-glass arches above. Each was equipped with four 75-horsepower Westinghouse motors and control equipment, air brakes and trolley poles. Along the letterboard of each car was the gold-leaf inscription CHICAGO-AIR *(Continued on page 26)*

Electric Railroading

or what's cookin' with juice—

A PHOTO SEQUENCE

Chirty years ago the electric railway was more than a conveyance; it was a way of life. It was to the past generation what the automobile is to the present. In the early years of this century there were no hard surfaced roads, and the internal combustion engine was little more than an experiment. The interurban used electric power to roll at high speed over smooth steel rails. It ran down the main streets and was as much a part of the county seat as Courthouse Square. Lovers did their courting in the back seat of the owl car. The interurban had little pretension to greatness, for it was as rural as the NYC was national.

But by that very fact it fell. In this day of hard surfaced roads and busses and trucks, the single small electric car serves little economic purpose. The electric railway survives where it is a railroad, with heavy track and private right of way and enough traffic to justify train operation. Now the electric railway is no longer a way of life, but a method of transport. Here, photographically, is the transition era between interurban and electric railroad.

H. A. List, 219 Pershing Dr., New Kensington, Pa.

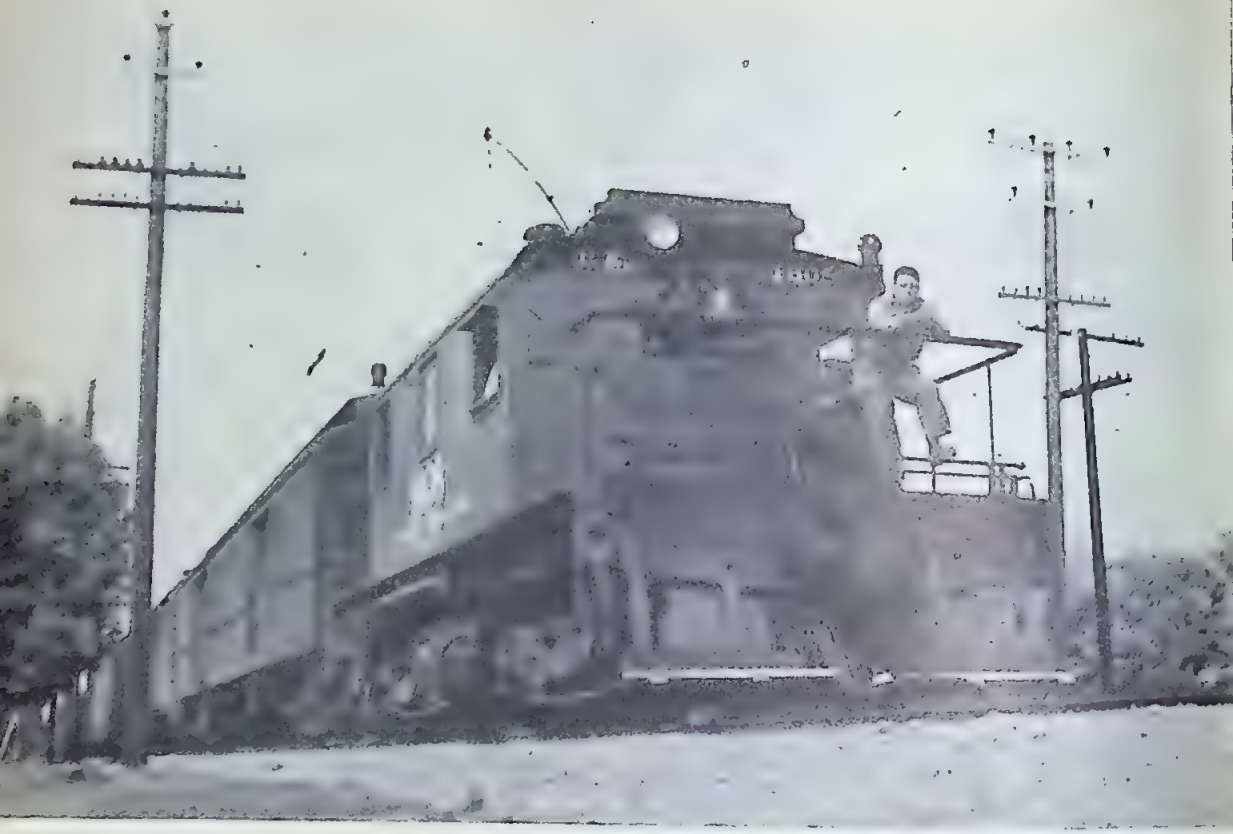
Both the Chicago South Shore & South Bend (above, at East Chicago on a rainy night) and the Chicago North Shore & Milwaukee (below, near Rondout, Wis.) are Class 1 railroads, deriving their revenue from the suburban passenger and local freight business of a densely populated strip along Lake Michigan.

Edward H. Bennett Jr., 500 N. Greenbay Rd., Lake Forest, Ill.

Alex. L. H. Darragh, 5836 N. Wayne Ave., Chicago 40, Ill.

Like the North Shore and South Shore, the Piedmont & Northern, operating in the Carolinas, is a Class 1 railroad. Its extensive freight business is characterized by its slogan, "A Mill to the Mile." At left and center above are typical scenes viewed by Motorman B. J. Rogers (right) and passengers who ride the P&N. Right-of-way scene is on the Southern Division; station unidentified. Contrasting sharply with present-day electric railroad operations was the Denver & Interurban (below), which went out of business in 1926. The D&I was a standard gauge line between Denver and Boulder, Colo., 45 miles, whose revenue was from passengers. When tourist business went to the highways, the D&I went to the dogs.

Collection of Frank E. Butts, 1118 E. 64th St., Chicago, Ill.



H. L. Kelso, 1735 E. 69th St., Los Angeles, Calif.

The Pacific Electric Railway System grew up as a passenger line in an area of 5000 square miles centering on Los Angeles. Today the swing is to freight, with 1279 miles of freight trackage, 801 miles of passenger. Above is locomotive No. 1618 with a southbound freight on the four-track Southern Division.

In the first years of the century Henry E. Huntington incorporated the Los Angeles Interurban Electric Railway Company (left, below) to extend existing Pacific Electric lines when the emphasis was on passenger business. Right, below, present-day R. P. O. (car) at Beverly Glen. Only one track of two is used.

Collection of Ira Swett, 1414 S. Westmoreland Ave., Los Angeles 6, Calif.

Warren E. Von Pertz, 1844½ Kelton Ave., Los Angeles, Calif.

J. A. McLellan, 47-B Wavecrest Ave., Winfield Park, N. J.

Weaving over an undulating combination of bridge and trestle, this southbound Philadelphia & Western train approaches Bridgeport after leaving Norristown (background). The P&W is a third rail line furnishing only suburban passenger service on 17½ miles of private right of way from Philadelphia to Norristown.

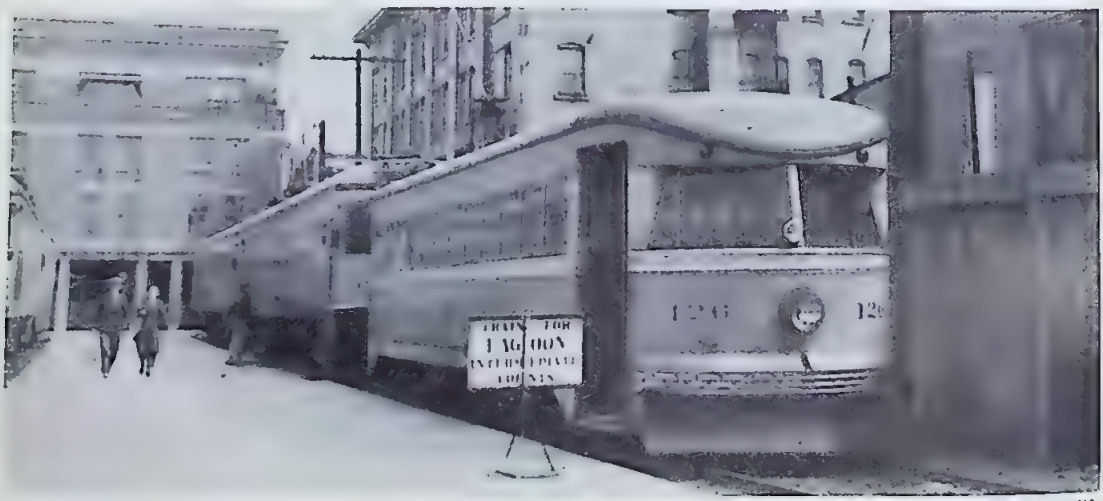
The Lehigh Valley Transit Company, a typical old-time interurban, operates from Easton, Bethlehem and Allentown to Norristown and then over the P&W to Philadelphia. Below are cars 1003 (left) and 1022, the latter southbound on P&W rails between King Manor and Hughes Park. Notice well-kept P&W track.

John P. Scharle, 64 Vermilyea Ave., New York, N. Y.

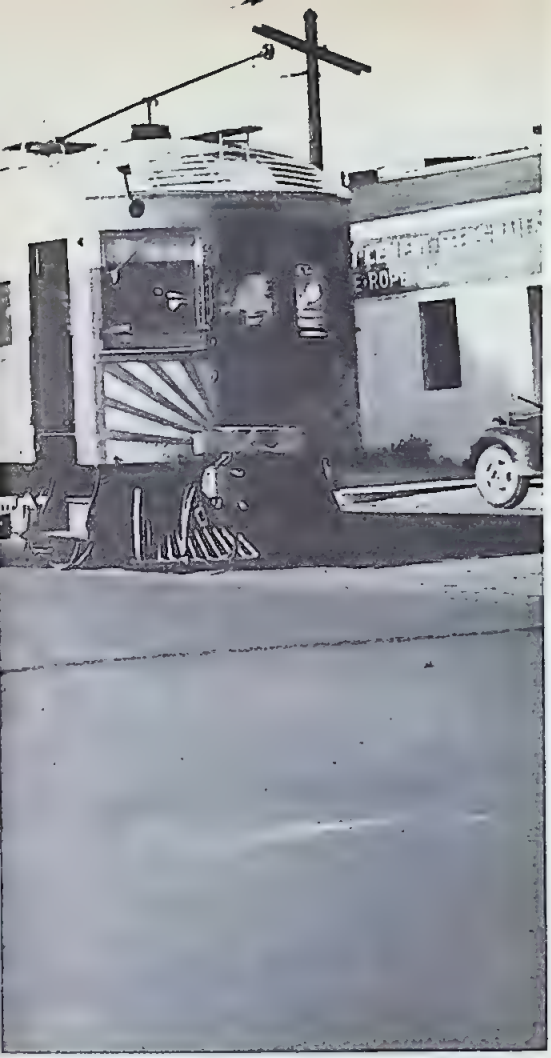
John P. Scharle.

Fred Fellow, 1282 Carlotta Ave., Berkeley 6, Calif.

Postwar casualty is the Salt Lake & Utah, shown (inset) as it appears to-



Arthur Lloyd, 1806 Silverado Trail, Napa, Calif.



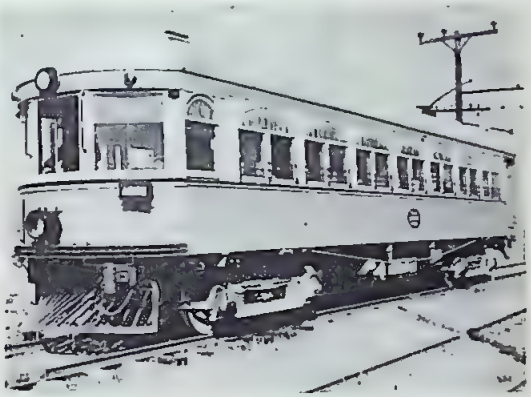
Fred Fellow.

day and (above) about 1940 in Salt Lake City. The SL&U survived the war and operated until March of this year.

The Electric Railroad Future

The future of the electric railway lies not in the old-style interurban, but in the heavy electric railway which profits by extreme density of traffic. To see this future we need but look about us. At 11,000 volts electricity hurtles thousand-ton passenger trains and 5000-ton loads of freight across the eastern states on the Pennsylvania Railroad. In the rush hours of our big cities it pours tens of thousands of commuters into the maelstrom of downtown over the Illinois Central, the Long Island, the Reading and dozens of others. And through concrete and steel caverns under the streets it is the essence of the subway, the only feasible relief for impossibly crowded street traffic in our largest cities.

All this and much more. The electric railway has not the romance of our neighbor of yesterday, the interurban, but it has an inconceivably more important future. For electricity can be and often is generated by waterpower, the only "fuel" which does not use up an irreplaceable natural resource.



C. D. Savage, 754 Post St., San Francisco, Calif.

The Bamberger Line, another Utah electric system, once was operated as a steam railroad. Electric operation began May 28, 1910. Running from Ogden to Salt Lake City, where photo at left was taken, the Bamberger uses the same terminal which served the Salt Lake & Utah, running south to Payson. Passengers could make the 102-mile trip from Ogden to Payson in 3 hours 55 minutes, with a half-hour layover between trains at Salt Lake City.

The Texas Electric Railway, which handles both passengers and freight, runs 174 miles from Waco, via Dallas, to Denison. Photo at right shows the approach to Dallas on the Waco-Dallas Division with a Santa Fe track in the foreground, ground level. Behind the viaduct is an interchange track of the TE. The upper photo shows car 367 waiting at George Siding on the Denison Line. Denison is 77 miles north-northeast of Dallas.

Alex. L. H. Darragh.

(Continued from page 19) LINE-NEW YORK. The crews sported dark blue broadcloth uniforms with much gold embroidery; AIR LINE was embroidered on their coat collars and embossed on their gold-plated buttons. Stockholders were duly impressed. They settled back in the leather cushions to enjoy the breeze which no sooner started than subsided when the car arrived at the end of the line. Over 2000 curious passengers were carried on the first day.

Construction progressed in 1907 until the winter snows made work too expensive. Snow filled the deep cuts level with the surface, and the Air Line cars stuck fast. Employees would shovel to dig cars out of the 30-foot-deep drifts. During this winter a severe depression hit the nation, and new sales of Air Line stock dropped to virtually nothing. People who had undertaken to buy stock could not keep up their payments. It became necessary to curtail construction work. Yet the Air Line was one of the few northern Indiana companies which paid their employees in cash throughout this period.

By authorizing a $680,000 issue of cumulative 7 per cent preferred stock, the Air Line directors raised enough money to resume construction work in May, 1908. "On to Chicago, then to Goshen!" was Miller's motto at this time. He explained frequently that the line should be considered at the outset as a high-class interurban railroad to furnish suburban service out of Chicago, although the ultimate objective was to establish a through trunk line between Chicago and New York. After the first division between Chicago and Goshen was completed, there would be a generous return on the investment with which to build more divisions.

Anxious to show some sort of income, the Air Line established an amusement resort in a shady grove beside the track about six miles from La Porte. At "Air Line Park" week-enders found a pavilion with a dance floor, refreshment stands, games, swings and various other forms of entertainment. Soon the two cars were hauling capacity loads to the park. The railroad advertised famous vocalists and vaudeville acts. The flickering celluloid thrillers of the day proved a popular attraction after darkness settled over the grove. At the end of each evening's entertainment the big cars raced into La Porte with their loads of merrymakers and returned with all speed to gather up the remaining crowd. The new road now had some place to go, during the summer excursion months at least, when it carried some 1200 passengers every fair Sunday at 10 cents the round trip.

Meanwhile the United States Steel Corporation had announced plans for a new steel city on the south shore of Lake Michigan, to be named Gary after the new company's president. What a windfall for the Air Line, for Gary was smack-dab on its route! The company finally got a franchise for its subsidiary, the Gary & Interurban Railway, which agreed to let the Air Line use its tracks for a reasonable consideration. Thus the Air Line had a connection into Gary and would be able to go through it on the way to Chicago. Miller and Price managed to get the first two cars of the Gary & Interurban running on Broadway by May 20, 1908, fulfilling the requirements of the Gary franchise at least for the time being. This was done in the midst of the 1907-1908 depression.

In the summer of 1908 the Air Line track was made serviceable as far as a little wooden station near Westville, a town of 2000, and operations were extended there from La Porte. After the merchants of La Porte established a free bus service between the station and Westville, the Air Line had another source of revenue. Then Valparaiso, about seven miles south of the Air Line route, voluntarily granted a franchise for an electric railway into that city which would connect it with the Air Line and with Chesterton, a town three miles north of the Air Line. Price's Co-operative Construction Company contracted to build this line, too. Although the Air Line announced its intention of operating the Valparaiso & Northern under the lease, it did not intend to divert Air Line funds to build it. The closely associated Co-operative Construction Company, however, offered stock in the V&N for sale, describing the wonderful attraction the lakes along the route would have for Air Line passengers from La Porte, Chesterton and the hot sand dunes of Gary. Passengers from Valparaiso would also be carried via the Air Line to those cities, the promotion explained. Accordingly, many Air Line stockholders took advantage of the offer, as they had for Gary & Interurban securities.

At this time the Murdock interests were building their line from South Bend via La Porte to Michigan City. The Air Line management, instead of resenting this intrusion into territory it had planned to serve to the east, told stockholders that the new line would be a valuable Air Line connection to the east. The Air Line actually did quite a bit of business in 1908, considering that it only ran out into fields

Crossing the Pere Marquette on through girder bridge pictured on page 18. Every sixth tie was a long one for eventual installation of a bottom-contact third rail. Overhead trolley shown in picture was planned to be only temporary.

from La Porte. Suspicion in private Wall Street journals and newspapers continued, however. Miller complained that "four times the Air Line has been called into courts upon false representation; twice, by secret processes instituted by wreckers, a receiver has had brief possession, although today the Air Line is not in the hands of a receiver."

The financial statement for the year ending December 31, 1908, is interesting because the expenses exactly equaled the earnings. Thus there was nothing to declare in the way of profits, since both columns read $22,276.92. An amazing coincidence, possibly helped by some juggling on the expenses side, accounted for this.

The Air Line bought a snow plow in January of 1909 and built new fences with its own lumber along the deep cuts where drifts had caused trouble the previous winter. East Gary gave the line a franchise that February to expedite construction of the line between East Gary and Gary. The Air Line decided to skip over the intervening 14 miles not yet begun between Coffey Creek and Gary and to build the first five miles into East Gary. Then the construction gang could turn east toward Coffey Creek while the Camp 4 gang worked west. Three new passenger trailer cars went into service on the Air Line in the spring, built by McGuire-Cummings of Paris, Ill. Designed to handle the expected extra Air Line Park business, they were 44 feet long, 8 feet 6 inches wide, flush deck and double-truck. The color was Pullman green like the two original motor cars.

The Coffey Creek fill remained a jinx. In May the tail end of a cyclone caught a trestle bent that was going into position, hurling it against several others that were not yet completely secured. Men were injured and one killed as 140 feet of structure fell down. More trouble occurred in November, when the immense weight of new fill that rested on soft river bottom slipped. Down went a section of trestle with a train of dump cars. President Miller explained that construction would be comparatively simple between Coffey Creek and Chicago, and east to Goshen and clear across Ohio. The stockholders responded by digging deep into their pockets for

First car loading at South La Porte, June 15, 1907, for the opening day round trip from La Porte to South La Porte.

more money to get the Air Line across Coffey Creek, keeping it straight and level. The first construction train finally crossed over the expensive work to the high ground beyond in October of 1910. It had taken four years, though Price had predicted completion of 60 miles on the "first division" in the first year.

While there seemed to be some inclination among the stockholders to become skeptical of the Air Line's progress, an unusual organization kept them generally co-operative. This was the Kankakee Air Line Stockholders' Association of the World, which claimed to have 50 "camps" in various parts of the country. These organizations held social gatherings, entertainments and outings at which speakers urged members to buy more stock in the Air Line. Their enthusiasm for the project was quite amazing in view of the extended delays they had to accept.

The Gary & Interurban was progressing faster than its parent company. In 1910 it completed a 10-mile extension from Gary to Hammond, over which the Air Line would go to Chicago — if it ever filled in the gaps. The Air Line also had a controlling interest in the Valparaiso & Northern, which was to cross Air Line tracks at Goodrum. Construction reached Goodrum late in 1911, but the Air Line proper never went any farther. Soon regular passenger service ran from Goodrum over V&N track to Chesterton. Construction work was in progress from East Gary to Gary, but no work had started on the 14-mile gap between East Gary and Goodrum on the Air Line's main line. These three interlocking companies had to build about 20 miles to connect the three isolated railroads they owned. Only the Gary & Interurban was paying any dividends at all, but all of the lines stood a better chance of prospering if they could connect with each other. Miller and Price managed through 1911 and 1912 to raise enough money to keep the work going so that the interurban system could begin paying dividends. Finally the companies inaugurated through service between Valparaiso and Gary, although this was not accomplished without some sacrifice in Air Line ideals. The east-west main line had a kink in it, for the junction between the Valparaiso & Northern and the Air Line to the west (called Gary Connecting Railway Company) was located a mile south of Goodrum (on the route) at Woodville Junction. Apparently the management decided to deflect the main line to take advantage of a crossing over the B&O at Woodville rather than build another expensive bridge over the B&O line at Babcock.

It was found expedient to retain the name, Chicago-New York Air Line, only as the holding company for these properties. The Gary & Interurban became the operating company. In January, 1913, a consolidation was arranged that gave the Air Line a controlling ownership in the Gary & Interurban so that Air Line stockholders could share in the profit of the G&I. Charles Burton discontinued the *Air Line News*, but started a weekly publication called the *Calumet*. This promoted the city of Gary, and also included reports on the activities of the Air Line holdings. The Air Line at last established railroad connections to Chicago when the Hammond, Whiting & East Chicago Railway linked Hammond with the Chicago street railways and elevated system.

Seven years after the first sale of stock, the

enterprise was beginning to bear modest fruit. For the six-month period between July, 1913, and January, 1914, the entire system had a gross income of $182,016, and expenses amounted to only $124,818. Things were looking up, if stockholders didn't count the miles to New York. Nearly three million passengers were carried in the period, in addition to a varied freight business. Baled hay, furniture, building materials, boxed fruit, vegetables, poultry, milk, and other farm produce rolled over the line in the Air Line's three flat cars and the Gary & Interurban's six box cars.

In literature published by the Air Line promoters during the years when they were building the "first division," one observes an increasing tendency to emphasize the importance of the line as a fast interurban railroad to carry the Chicago suburban traffic. When the first division had demonstrated its profit-making possibilities, said the management, it would then be easier to obtain more backers for the succeeding divisions and their branches.

Although it served a purpose as an interurban line, the Gary & Interurban was not the best route, nor did it serve the largest cities outside of Chicago. The Chicago, Lake Shore & South Bend Railway ran from South Bend to Hammond. Nearer the lake shore was the Chicago, South Bend & Northern Indiana Railway, with its line from South Bend to La Porte and Michigan City. Undoubtedly the original Air Line portions of the Gary & Interurban system would have made a better through line to New York than they did an accessible suburban line. The completed system never really prospered.

Another Air Line principle, that of not borrowing any money for construction purposes, had been abandoned to build the Gary Connecting Railway in 1912. When the company was unable to meet payments on the Gary Connecting Railway bonds in 1915, as well as other debts, it went into receivership. In 1917 the Gary Street Railway Company was formed to buy these properties when they were sold under foreclosure.

Electric railroad enthusiasts who visit the original right of way, which can still be plainly traced, will marvel at the straight, level speedway. They will gaze with awe at the tremendous Coffey Creek fill (it's spelled Coffee today) and the deep cuts and wonder about the man who claimed he could build such a route through mountainous Pennsylvania. Some of the more imaginative railfans will hear the deep-throated whistle of a big, palacial car as it streaks along the pike, with *Chicago* on one end and *New York* on the other. Forty years have passed since it started on its swift way, and it hasn't ever reached either place!

Chicago-New York Electric Air Line Railroad and Connections—Time Card

GOING WEST—A M time in light figures, P M time in dark figures.													GOING EAST—AM time in light figs. PM time in dark figs.											
P M	P M	P M	P M	P M	P M	P M	P M	A M	A M	A M	A M			A M	A M	A M	P M	P M	P M	P M	P M	P M	P M	P M
11 00	9 30	8 00	6 30	5 00	3 30	2 00	12 30	11 00	9 30	8 00	6 30	Lv..La Porte..Ar.		8 00	9 30	11 00	12 30	2 00	3 30	5 00	6 30	8 00	9 30	11 00
11 22	9 52	8 22	6 52	5 22	3 52	2 22	12 52	11 22	9 52	8 22	6 52	..Air Line Park..		7 37	9 07	10 37	12 07	1 37	3 07	4 37	6 07	7 37	9 07	10 37
.....	10 15	8 45	7 15	5 45	4 15	2 45	1 15	11 45	10 15	8 45	7 15	..Westville Road.		7 15	8 45	10 15	11 45	1 15	2 45	4 15	5 45	7 15	8 45	10 15
.....	.....	.....	.....	6 05	.....	3 05	.....	12 05	.....	9 05	.....	.....Westville.....		...	8 25	.....	11 23	....	2 25	..	5 25	....	.....	.....
.....	.....											Via Monon												
.....	.....	9 40	.....	.....	.....	.....	.....	.....	.....	9 40	....	.....Westville.....		....	....	.....	.....	.....	.....	3 25	....	*1 00	.....	.....
.....	.....	9 50	.....	.....	.....	.....	.....	.....	.....	9 45	....	...Alida [B. & O.]...		....	....	.....	.....	.....	.....	3 15	....	8 03	.....	.....
.....	.....	10 00	.....	.....	.....	.....	.....	.....	.....	9 48	....	Haskells [Gr. Tr.]		....	....	.....	.....	.....	.....	2 50	....	7 59	.....	.....
.....	.....	10 18	.....	.....	.....	.....	.....	.....	.....	9 56	....	.....Wanatah.....		....	....	.....	.....	.....	.....	2 16	....	7 50	.....	.....
.....	.....											Via Pennsylvania												
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	10 03	....	.....Wanatah.....		....	....	.....	.....	.....	.....	.....	....	7 06	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	10 19	....	....Valparaiso....		....	....	.....	.....	.....	.....	.....	....	6 42	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	10 47	....	.....Gary.....		....	....	.....	.....	.....	.....	No'th b'nd	....	6 06	.....	.....
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.....	.....	10 27	.....	.....	.....	.....	.....	.....	.....	10 00	....	.....Wanatah.....		....	....	.....	.....	.....	.....	2 16	....	7 50	.....	.....
.....	.....	11 00	.....	.....	.....	.....	.....	.....	.....	10 12	....	...So. Wanatah...		....	....	.....	.....	.....	.....	1 55	....	7 48	.....	.....
.....	.....	11 15	.....	.....	.....	.....	.....	.....	.....	10 19	....	.....La Crosse.....		....	....	.....	.....	.....	.....	1 10	....	7 31	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	10 20	....	.....Wilders.....		....	....	.....	.....	.....	.....	12 40	....	7 23	.....	.....
.....	.....	11 40	.....	.....	.....	.....	.....	.....	.....	10 30	....	.....Riverside.....		....	....	.....	.....	.....	.....	.....	....	7 21	.....	.....
.....	.....	12 20	.....	.....	.....	.....	.....	.....	.....	10 47	....	.....San Pierre....		....	....	.....	.....	.....	.....	12 10	....	7 10	.....	.....
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												.....Monon		....	....	.....	.....	.....	.....	10 15	....	6 15	.....	.....
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.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	.....Gary.....		....	....	.....	.....	.....	1 15	.....	....	.....	.....	.....
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		A M								A M							P M		P M	A M		P M		

*Bus transportation to connect with 8:45 car for La Porte, saving two hours, can be secured for 50-cent fare for one or 25 cents each for two or more.

CONNECTIONS: At La Porte, with Northern Indiana Electric, for Michigan City, South Bend, Mishawaka, Elkhart, Goshen, Indiana, and Niles and St. Joe, Michigan; at Westville, with the Monon for the South, for Wanatah, Valparaiso, La Crosse, and for the North for Michigan City. Cars every hour and a half.

This time card, which appeared throughout 1909 and 1910 in the Air Line News, illustrates the schedules arranged both over the Air Line's own completed track of roughly 20 miles and over lines of the B&O, Grand Trunk, Pennsylvania, Monon, and Wabash railroads from La Porte to Gary and Chicago. Notice use of bus connection in next to last column, eastbound.

Bellows Falls Interlude on the Green Mountain Flyer

Photos by Bill Rohde

Bellows Falls, Vt., is a rendezvous of the Rutland and Boston & Maine railroads. Rails of the B&M run to the north, east and south, while the Rutland comes from the west to keep its appointments with the larger road. In the photo at left the Green Mountain Flyer crosses the Connecticut River behind a Rutland locomotive to make the meet. At top of page, Rutland switcher No. 100 has tacked a coach onto the rear of the Flyer in preparation for its departure to Boston over B&M rails. The Green Mountain Flyer connects Montreal and Boston via Canadian National, Rutland, B&M.

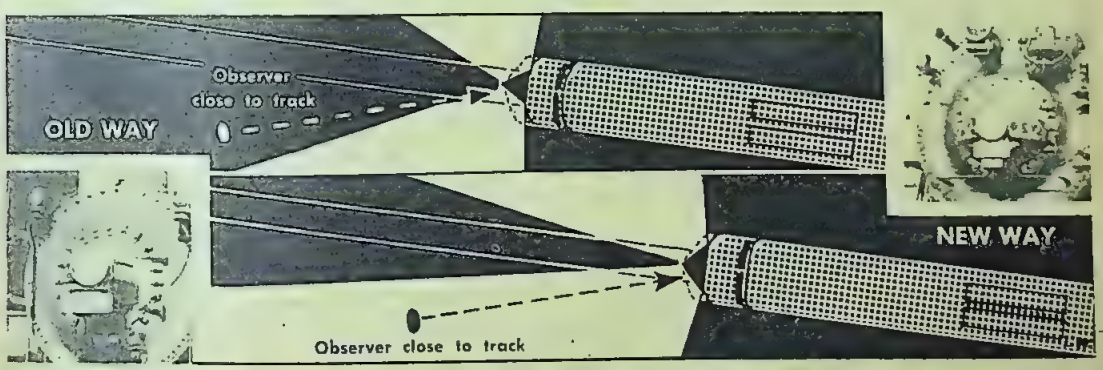
New Milwaukee Road Engine Numbers

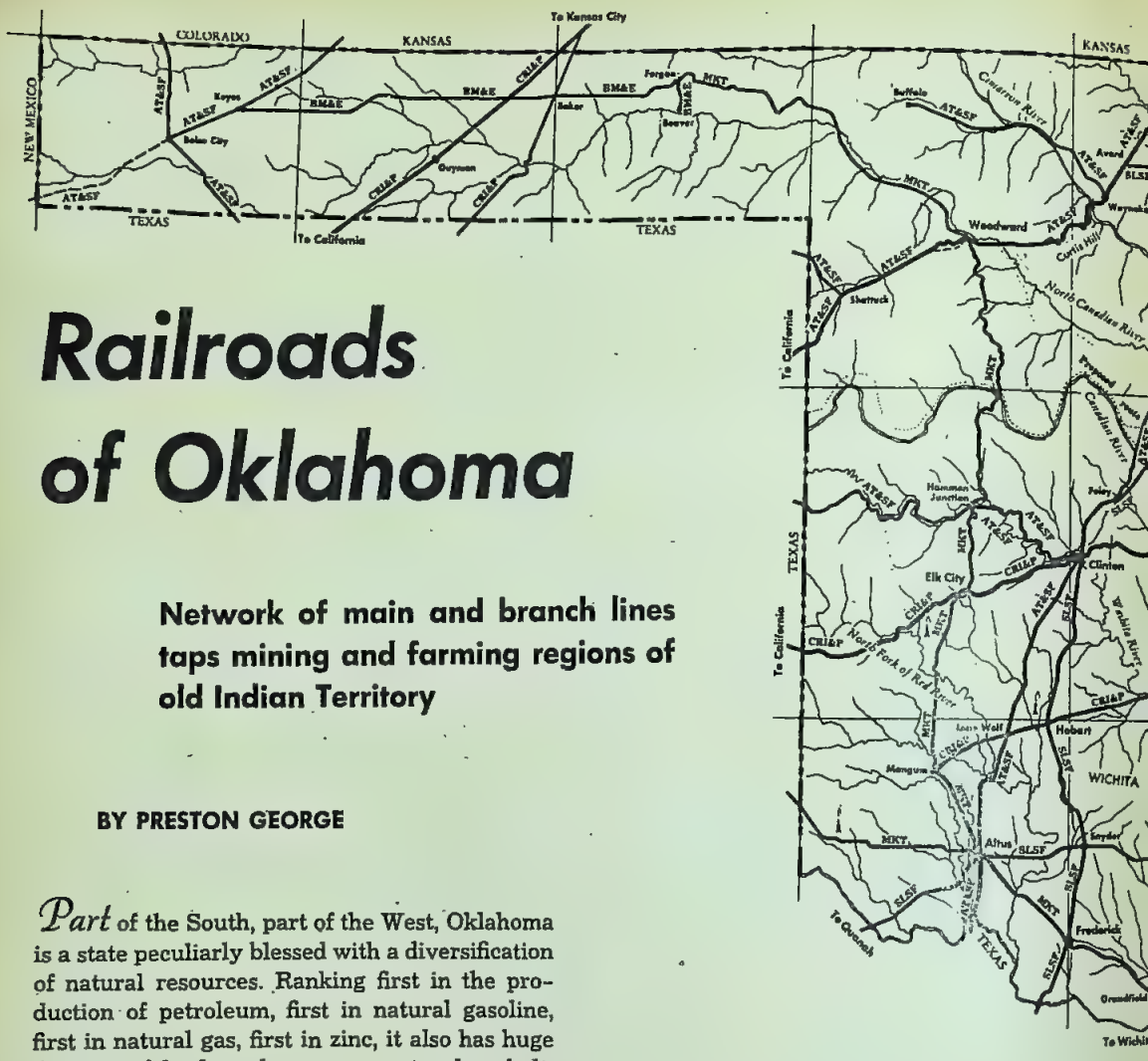
Locomotive numbers play an important part in train operation, and it is essential that they be clearly visible for some distance at night as well as in the daytime. Through the locomotive number a train is identified to crews on other trains. Without this information trains would be operated by guess and by gosh, and the crew of one train wouldn't know whether the train on the passing track were No. 28, running behind schedule, or an extra.

Faster train speeds have resulted in a new design of numbers on Milwaukee Road engines. Not only are they larger and set at a wider angle on the number headlight wing, but the figures themselves are of a special design, originally used on a popular brand of alarm clocks. Because of their simplicity it is impossible to confuse a 5 with a 3 or a 6 with an 8. Letters used in conjunction with figures are also designed to eliminate confusion.

Pictures on these pages show, at top, a four-unit Diesel, No. 37, with the new type of number on the front door; at left, below, a steam locomotive with the old-style number; and, at right, below, a steam locomotive with the new number set at the new angle—45 degrees as compared with 30 degrees on the old type. In the photo of the Diesel, the letter "A" or "D" is blocked out. If this four-unit locomotive is broken up to make two two-unit locomotives, the covering will be removed and the locomotives will be designated 37-A and 37-D.

The complete set of figures used in numbering Milwaukee Road engines today is shown at the bottom of the page. They are designed to be eight inches high, white on a black background. The old figures were six inches high. The sketches illustrate the greater angle of visibility with the new lighted number wings.





Railroads of Oklahoma

Network of main and branch lines taps mining and farming regions of old Indian Territory

BY PRESTON GEORGE

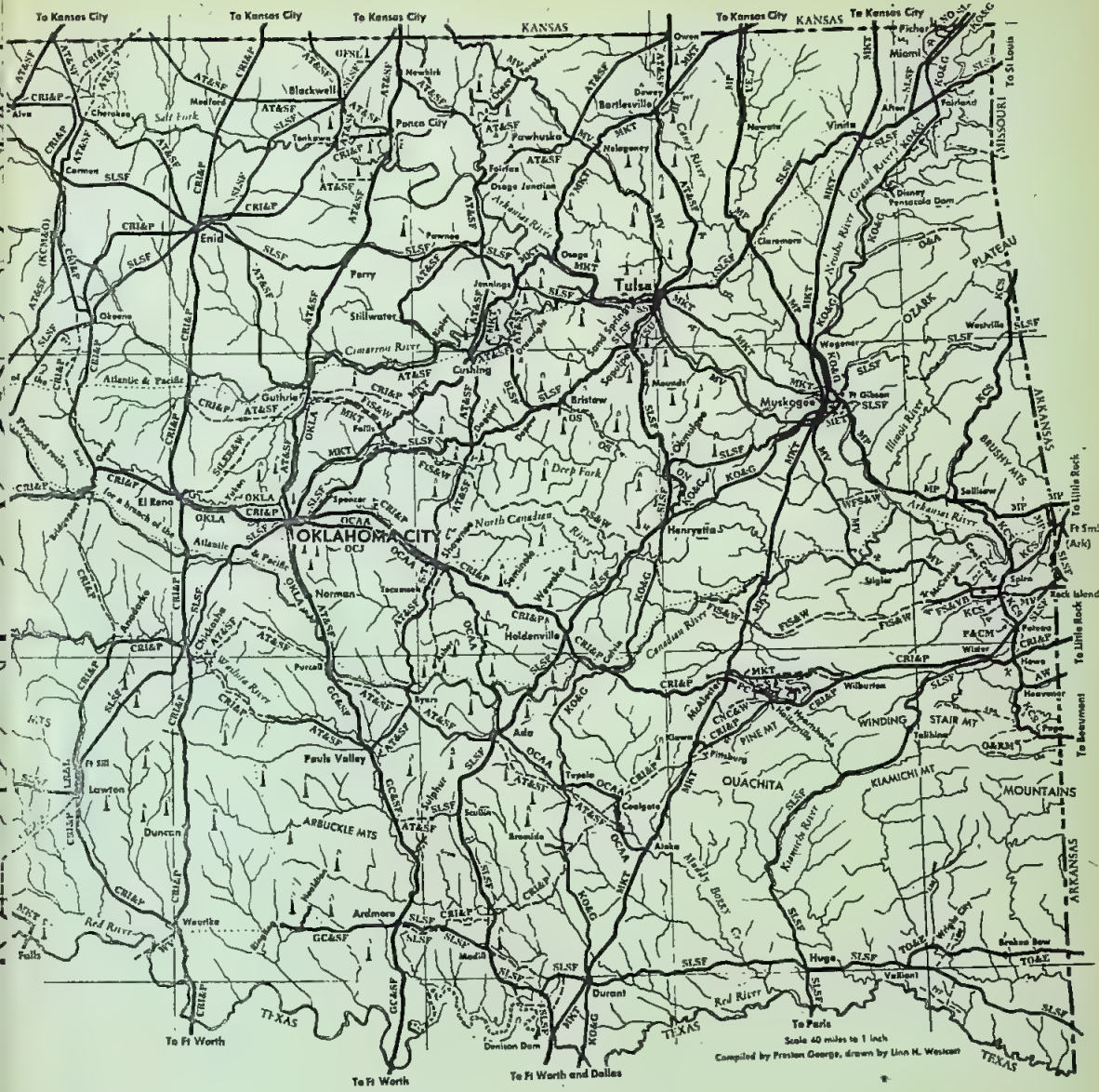
Part of the South, part of the West, Oklahoma is a state peculiarly blessed with a diversification of natural resources. Ranking first in the production of petroleum, first in natural gasoline, first in natural gas, first in zinc, it also has huge deposits of lead, coal, gypsum, natural asphalt, sand, gravel, and building stone. Its southeastern section nurtures large stands of timber; its north-central area, wheat; and the Osage Hills country with its thick, luxuriant grass is a favorite summer grazing ground for western cattle en route to the slaughterhouse.

No wonder the white man sought and found justification for reclaiming this land from the Indians. And no wonder that, even before the creation of the Oklahoma Territory by congress in 1890, railroads began to build into the territory. The public sale of lands purchased from the Indians on April 2, 1889, precipitated an inrush of settlers that made Guthrie a full-fledged city by three o'clock that same afternoon, with four business streets laid out and lined with going businesses housed in tents, among them the daily Oklahoma *Herald* and a bank capitalized at $50,000. The white population of Oklahoma jumped from practically nothing to a hundred thousand in a day.

Some guard-evading citizens got to the best land sites sooner than they were supposed to. They aggravated the more law-abiding people and got to be known as "sooners," thus the "Sooner State."

Railroad mileage increased rapidly. By 1925 steam railroad mileage was 6621 and had touched every county in the state but Cimarron County at the very western end of the state. Even this county now has railroads. As the railroads grew, so, too, grew the state, until in 1940, 33 short years after its admittance to statehood, Oklahoma ranked 22 in population.

Railroad mileage today, with its inevitable shrinkage as lines were abandoned for one reason or another, totals 6509. This includes electric interurban lines but not several privately owned



RAILROADS OPERATING ——

Atchison, Topeka & Santa Fe
Arkansas Western (KCS system)
Beaver, Meade & Englewood (MKT system)
Chicago, Rock Island & Pacific
Fort Smith & Van Buren (KCS system)*
Gulf, Colorado & Santa Fe (AT&SF system)
Kansas City Southern
Kansas, Oklahoma & Gulf
Midland Valley*
Missouri-Kansas-Texas
Missouri Pacific
Northeast Oklahoma (Elec)*
Oklahoma City-Ada-Atoka*
Oklahoma City Junction (Switching)
Oklahoma (Elec)
Okmulgee Northern*
Osage*
Pittsburg County (Elec)
St Louis-San Francisco
Sand Springs (Elec)
Texas, Oklahoma & Eastern
Sapulpa Union (Elec)*
Union Electric (Elec)
Wichita Valley (CB&Q system)

*Freight operation only

ABANDONED - - - -

Bartlesville Interurban (Elec)
Choctaw, New Castle & Western
Fort Smith & Western
Lawton Ry & Lighting (Elec)
Muskogee Electric Traction (Elec)
Oil Fields Short Line
Oklahoma & Arkansas
Oklahoma & Rich Mountain
Oklahoma Southwestern
Poteau & Cavanal Mountain
St Louis, El Reno & Western
Shawnee-Tecumseh Traction (Elec)
Webber Falls, Shawnee & Western

lines which are not classed as common carriers. Greatest mileage in the state is claimed by the Santa Fe, with 1570 miles. Three other major companies control most of the remaining mileage: the Frisco, 1498 miles; the Rock Island, 1170, and the Katy, 956.

Included in the Santa Fe mileage are parts of three trunk lines: Chicago to California (via Belen, N. Mex.), Chicago to Galveston, and Kansas City to Tulsa. The Frisco is represented by through lines from St. Louis to Oklahoma City and Kansas City to Fort Worth and Dallas. Fifty-six miles of the Rock Island's "Golden State Route" cuts diagonally across the "panhandle" in the northwestern corner, and lines from Chicago to Dallas and from Memphis to Tucumcari, N. Mex., form a huge cross on the main portion of the state intersecting at El Reno. The Katy's main line from Kansas City to San Antonio (Oklahoma's first railroad) crosses the eastern part of the state, and a lighter traffic main line branches off at Parsons, Kan., and runs southwest to Oklahoma City.

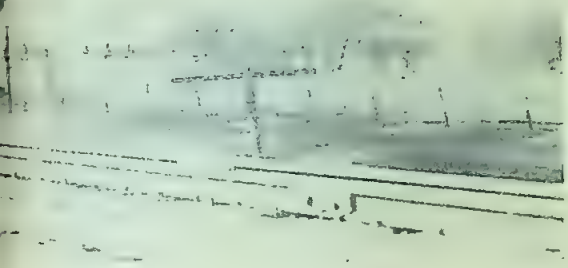
These four roads also have numerous branch lines, especially in the western part of the state. Traffic on most branches is light and sometimes consists merely of a freight and a passenger train each way daily. On a few lines an occasional train is run only when there is some freight to be hauled.

Two other Class 1 roads are represented by a main line each: the Missouri Pacific's line from Kansas City to Fort Smith and Little Rock, Ark., and the main line of the Kansas City Southern from Kansas City to Port Arthur, Tex.

Most of the numerous short lines which were built in Oklahoma have been absorbed by larger companies or abandoned. Most likely to survive as an independent line is the Okmulgee Northern, which, strangely, runs *south* from Okmulgee for 10 miles.

The line of the Frisco from Monett, Mo., via

Santa Fe No. 3408, a 4-6-2, on No. 16, a mail-express-passenger local on the Chicago-Galveston line. In the distance is the city of Perry, about midway between Oklahoma City and the Kansas state line. The train consists of eight cars.



Preston George, 1229 N. Hudson, Altus, Okla.

Fort Smith to Paris, Tex., crosses Winding Stair Mountain, one of the Ouachita group, through a low pass northwest of Talihana. Traffic is light and trains are kept short so that a three- or four-car passenger train is handled by a 1040-series Pacific, and freight trains by one or two 1266-series 2-8-0's. The only railroad tunnel in the state is found on this line. It is about a quarter-mile long, bored through a hog-back ridge near the Arkansas state line.

In general, the western part of Oklahoma consists of bare rolling hills and prairies devoted mainly to agriculture and stock raising. In the east-central and northeastern sections are wooded hills interspersed with rich creek and river valleys. Most of the mineral wealth lies in the eastern half, including all the zinc, lead, coal, natural asphalt, and the greater portion of the oil and gas. In the southeastern section are the low, pine-covered Ouachita Mountains, the highest of which has a difference in elevation of some 2000 feet from the base to the top.

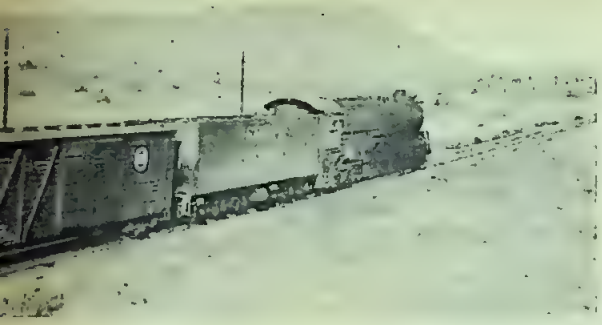
The only mountain railroading in Oklahoma is found in this southeastern section. It is traversed by the *Kansas City Southern* on its route from Kansas City to the Gulf. Big 2-8-8-0 Mallets blast echoes from the mountain sides as they wrestle their strings of freight cars up the grades. These engines, numbered from 750 to 766, are true Mallets, well suited to hauling slow drag freight up mountain grades.

High points in Oklahoma railroading are the "rushes," short periods of time when traffic increases two, five, or even 10 times its normal volume. An air of excitement and expectancy ripples all along the line. Yards and sidings are used to capacity. New faces are everywhere: furloughed men, boomers. Engines become dingy and grimy from lack of cleaning and overhauling. Then, as quickly as the rush began, it subsides, and everyone settles back into routine.

The advent of the grain combine created the wheat rush. The combine cuts and threshes the wheat in one operation. This must be done when the grain is ripe. As the combine moves across a field the threshed grain falls into a bin on the machine, then into a truck. As soon as one truck is loaded it dashes off to the nearest railroad siding, and an empty truck takes its place. Thus, in two or three weeks' time, the grain of a whole state may be dumped into the laps of the railroads for transportation to storage elevators.

Focal point of the wheat movement in Oklahoma is Enid, a city of 28,000 population, some 90 miles northwest of Oklahoma City. Here the tracks of the Rock Island, Frisco, and Santa Fe converge from 10 different directions on seven major elevators having a combined storage capacity of 18 million bushels. There are also several small elevators.

About the first week of June, extra engines start moving in from other divisions, and the roads begin organizing their forces for the battle ahead. By the middle of the month the wheat rush is in full swing. Trainloads of grain come rolling into Enid over 10 mainline tracks night and day. Each train usually consists of cars assigned to more than one elevator, sometimes to all seven elevators. This creates a tremendous amount of switching and transfer work, for cars



must be spotted at the elevators, unloaded, and put back on the road again for reloading as quickly as possible.

A record day was June 19, 1939, when 963 cars were handled in and out of Enid. During that same week, ending June 23, 4355 cars passed in and out, also a record. That so many cars could be handled in such a short time seems miraculous when it is considered that each car had to be spotted at one of seven specific places for unloading, and that all the switching is of the old-fashioned flat-yard type, with no humps, car retarders, nor electrically operated switches. To simplify transfer operations, one road does the switching for all three. They rotate from year to year, the Frisco doing all the switching one year, the Santa Fe and Rock Island in turn.

The Oklahoma stock rush takes place during April and May. A good part of the nation's beef supply is born and grows to maturity in Texas and Mexico. In the early days of the Southwest, mature cattle were started north in the spring on foot. The herds moved slowly across the old Indian Territory into Kansas until a railroad was reached on which they could be shipped east. They traveled many trails, the most famous being the Chisholm Trail, "the old Chissum Trail" of song and story.

The settling of the country and the coming of the railroads stopped the overland cattle drives. But every spring the herds still move north, only now they move by rail.

Cars of cattle roll into Fort Worth, Tex., over

Top, a 98-car eastbound stock and fruit extra goes down Curtis Hill west of Waynoka behind an AT&SF 2-10-4. A feeding and resting stop is made at Shawnee (second from top). In the next photo a redball freight speeds along the Arkansas River in northern Oklahoma, bound for Texas behind 2-8-2 No. 4007. Until recently when the road acquired some Berkshires from the B&M this was the only engine on the Santa Fe equipped with a Coffin feedwater heater. Stretched across the bottom of these pages is part of a 96-car westbound freight train ascending Curtis Hill with a 2-10-2 No. 3807 at the head and a 2-6-2 No. 1837 behind.

the Southern Pacific, Texas & Pacific, Santa Fe, Missouri Pacific and Katy. There they are consolidated into trainloads by the Santa Fe. Big Mikes are hooked on and rushed north, day after day, to Oklahoma and Kansas. On the way they meet an equal number of returning empties.

The Osage Hills country of north-central Oklahoma and the Flint Hills region of Kansas are the summer grazing grounds for these cattle. Late in summer, fattened for market, they are shipped on to the north and east.

A favorable spot for watching the stock rush is at Shawnee, 40 miles southeast of Oklahoma City, on the Santa Fe's freight line from central Texas to Oklahoma, Kansas, and eventually Chicago. During the peak of the rush as many as 4000 carloads of stock pass through this division point in a month. Watching trainloads of cattle go wheeling by, day after day, for a week does not impress one so much. But when they continue for three, four, five, six weeks, it seems that all the cattle in the world are on the move.

Big 3160- and 4000-class 2-8-2's are used on the stock trains as well as on all through freight on the Oklahoma and Northern divisions of the Santa Fe. These fine Mikes have large boilers, 63-inch drivers, and plenty of sand to put under them. Engines are changed at Shawnee, 15 minutes being allowed for changing engines and cabooses and inspecting the train and air. A crew and engine have been known to make three trips over the 145-mile division between Shawnee and Arkansas City, Kan., within the 16 hours allowed by law. These trains are given redball handling in an attempt to put the stock through from origin to destination without having to unload for feed, water and rest, although pens are provided at Shawnee for feeding and resting any stock which may require it.

Lines of the Frisco and of the Kansas, Oklahoma & Gulf penetrate the mining area in the northeast corner of the state. A smaller road, the Northeast Oklahoma Railroad, practically owes its existence to the mining industry. Formerly an electric interurban line, it was sold to the Eagle-Pitcher Mining & Milling Company in 1938. The trolleys were dismantled and now it operates with Diesel freight locomotives.

Agricultural products include cotton, wheat, corn, livestock, hay, potatoes, broomcorn, peanuts, watermelons and pecans. Agricultural processing plants include cotton gins, cottonseed oil mills, flour and feed mills, and meat-packing and poultry-dressing plants.

Most of the processed foodstuffs, clothing, and manufactured goods consumed in the state are shipped in from other parts of the country. Fast merchandise freights operating on schedules nearly as fast as passenger trains come into Oklahoma from St. Louis, Kansas City and Chicago. An example is Santa Fe's No. 39, famous as an overnight train from Chicago to Kansas City. Leaving Chicago at 6 o'clock one night, it arrives in Oklahoma City at 10 the next night. Both the Katy and Frisco have overnight merchandise trains from Kansas City to Tulsa, with approximately noon arrival in Oklahoma City. Perhaps best-known to Oklahomans is the Frisco *Flash,* which leaves St. Louis at 7:30 each evening to arrive in Tulsa by 8:30 the next morning and in Oklahoma City not later than 12:30 p. m., taking only three hours longer than the *Meteor* to complete the 542-mile run. Five hundred forty-two miles in 17 hours! That is rolling freight with a vengeance.

With an abundant supply of natural gas and petroleum available, nearly all industries in the state now use gas for fuel. Homes and buildings are heated with gas. Nearly all locomotives in Oklahoma burn oil, the exceptions being some of those on the Missouri Pacific and Kansas City Southern and on a few short lines. Railfans living here are never troubled with a cinder in the eye. Its nearest counterpart is a grain of sand when the fireman eases a scoopful into the firebox to clean out the flues.

Oklahoma has very little double-track main line, the total probably not exceeding 100 miles.

All photos by Preston George.

Meyers Photo Shop, Oklahoma City, Okla.

Where the railroad was, the civic center is. When automobile and train traffic began to snarl in downtown Oklahoma City, the old Union Station (below) was removed and a civic center (above) was built in its place.

The new Union Station shown below, which the Frisco and Rock Island use in Oklahoma City, is south of the business district. The old structure was sold to the city in 1920 and ceremonies were held on its platform before it was razed.

Frisco Lines.

Meyers Photo Shop.

Traffic is light in comparison with the more densely populated eastern states. The longest two-way section, some 50 miles, is on the Katy's main line south of McAlester. All Santa Fe trunks and a considerable portion of the Frisco and Katy mains are equipped with automatic block signals.

The prevailing direction of traffic is from north to south. Only the Rock Island crosses completely from east to west. Every one of the nine trunk lines crossing the north boundary of the state goes to or through Kansas City. Over this northern boundary run such trains as the *Golden State Limited, Californian, Grand Canyon Limited, Scout, Twin Star Rocket, Chicagoan, Ranger, Tulsan, Katy Flyer* and *Firefly*. Other well-known trains operating in Oklahoma are the *Meteor, Will Rogers, Texas Special, Bluebonnet, Southern Belle* and *Choctaw Rocket*.

To compete with the Missouri Pacific's Sunshine Route between St. Louis and Texas, the Frisco and Katy jointly operate the *Texas Special* and *Bluebonnet* over the Frisco from St. Louis to Vinita, and south from there over the Katy through Muskogee, McAlester and Durant to the principal cities of Texas.

The "oil capital," Tulsa, one of the clean, modern cities of the United States, has a new Union Station which does its bit to add to the general attractiveness of the city. It is used by the three steam railroads operating passenger trains into Tulsa: Frisco, Santa Fe and Katy. A fourth railroad, the Midland Valley, offers freight service only. Roundhouse, yards, and shops of the Frisco in West Tulsa, just across the Arkansas River, are located in typical Oklahoma surroundings with the stacks and towers of the huge Mid-Continent oil refinery rising in the background.

From Tulsa, the Sand Springs Railway, a double-track standard gauge electric freight and passenger line, runs 10 miles up the river valley to Sand Springs, an industrial town of 6000 population. Plants in this area manufacture oilfield machinery, refine petroleum, make glass and fabricate steel.

The Sapulpa Union Railway, an electric freight line, extends between West Tulsa and Sapulpa. At one time it operated out of Tulsa proper and its line continued beyond Sapulpa to Mounds, a total of 24 miles.

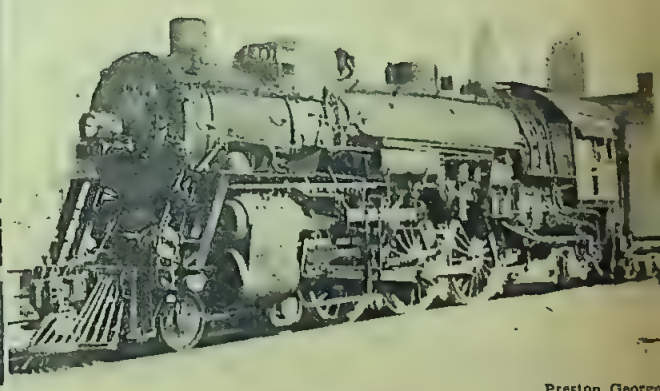
The Frisco's route from Tulsa to Oklahoma City, 117 miles, is double-tracked the 14 miles to Sapulpa, where the road to Dallas and Fort Worth branches to the south. From Sapulpa to Oklahoma City is single track. The route traverses a succession of wooded hills and creek valleys; most of the way is hard going with many curves and grades. At Spencer the line swings around three reverse curves having a 45-mile per hour restriction, then takes to the smooth, level valley of the North Canadian River for the last 10 miles to the capital.

Oklahoma City is unique among the larger

The Santa Fe has its own station in Oklahoma City, the new building shown below. The railroad elevated its tracks at the same time the station was under construction. A portion of the train shed can be seen in the left background.

Santa Fe.

No. 3441 is shown on its arrival at Santa Fe station with overnight train No. 27 from Kansas City, which, with numerous stops, makes the 384 miles in 10 hours to arrive at 8 a. m. Fastest time west is 7 hours 15 minutes.



Preston George

Preston George

cities of the country in that the railroad was there before the city. Although it was larger in population in 1940 than San Diego, Fort Worth, Miami, Nashville, Hartford, Des Moines or Salt Lake City, the townsite was not laid out and settled until 1889. The Santa Fe had already built through Oklahoma City's site two years before the settlers came.

It has three passenger stations: the Union Station, used by Frisco and Rock Island; the Santa Fe, near the heart of the business district; and the Katy station near by. The Union and Santa Fe stations are attractive modern buildings, constructed about 13 years ago. At the same time the Santa Fe elevated its tracks north and south through the main business section on an earth fill held in place by concrete walls.

The Rock Island main line and passenger station and the Frisco passenger and freight stations originally lay in an east-west direction through the main business district. This was a great annoyance due to trains crossing crowded streets at grade and disrupting traffic. In the late 1920's the city bought this yard and station property and converted it into a civic center where now stands the city hall, county courthouse and municipal auditorium, surrounded by attractive lawns and flower beds, all within the shadow of 30-story office buildings.

The Rock Island completed the relocation of its main line to the south of the business district in 1930, and with the Frisco built the Union Station. The Union and Santa Fe stations in Oklahoma City, and the Union Station in Tulsa, are of the through type. They are not extensive and complicated as are stations in the large cities of the East, but are modern, of pleasing architecture and well suited to the relatively simple railroad operations that they accommodate.

The most extensive railroad facilities in Oklahoma City are those of the Frisco, which has a roundhouse, small locomotive shop, freight yard and coach yard. The Katy, which has a line ending here, also maintains a roundhouse and yard. The 132-mile Oklahoma City-Ada-Atoka Railway uses the Katy's facilities, except for the roundhouse, servicing its engines on a track of

Before 1940, the Oklahoma Railway's terminal station in Oklahoma City presented the busy scene shown in the photo above. Three interurban lines, all street car lines but one, and several bus lines ran through the station. Now all but one of the tracks have been removed. Engines like the 603, below, were once used by Oklahoma Railway.

Preston George.

its own between the Katy and Rock Island yards. Oklahoma City is not a division point on either the Santa Fe or Rock Island, but since they both originate trains here they maintain facilities for servicing road and switch engines and for cleaning coaches.

Oil derricks, part of a large oil field which extends through the whole eastern part of the city, are scattered through the east yards. The sands underlying the city at a depth of about 6000 feet are so rich in oil that wells have been drilled in all sorts of difficult and confining locations. Wells surround the capitol, and one well was even drilled on a slant to tap the oil lying directly beneath it.

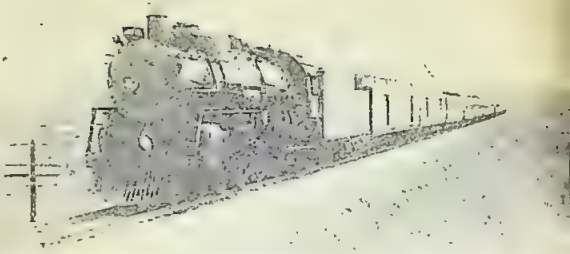
Of interest to electric railroad fans is the Oklahoma Railway, which operates the bus and street car systems in Oklahoma City and interurban passenger lines that radiate north to Guthrie, 31 miles, west to El Reno, 29 miles, and south to Norman, 18 miles. This electric railway once did all the switching and transfer work in the stockyards district through the Oklahoma City Junction Railway, which it leased and operated, interchanging freight cars with all steam railroads at Oklahoma City as well as at smaller towns along its 78 miles of interurban lines. In 1944, however, its freight facilities were taken over by the Rock Island and Santa Fe.

The Santa Fe line north from Oklahoma City through Guthrie, Perry and Ponca City is one of the most modern roadbeds in the state. Rails weighing 110 and 112 pounds to the yard are supported by big, sound ties and a thick layer of crushed limestone ballast. Automatic block signals are of the upper-quadrant semaphore type. Many of the passing sidings are equipped with spring switches to save time at meets. For the 95 miles to Ponca City the line runs at right angles to the streams and so is up and down hill all the way. In 1936 the Santa Fe began a number of grade revisions and line changes that

Preston George.

The 196-mile Fort Smith & Western fought a valiant battle for existence and seemed to be winning until 1939, when it was sold to a junk dealer and torn up. Above photo was taken at Prague, looking east along the main line. Below, one of the few stretches of double track in the state is on the Chicago-Galveston line of the Santa Fe, where a 2-8-2 No. 3199 is ascending a hill near Newkirk.

Preston George.



All photos by Preston George.

Top, typical Santa Fe branch line passenger train at Clinton, Okla. This is on the former Kansas City, Mexico & Orient line which the Santa Fe acquired in 1929. Bottom, Oklahoma City-Ada-Atoka Railway freight train near Marion, about seven miles east of Oklahoma City.

Top, the Chicago-bound Santa Fe Ranger gathers speed about five miles north of Oklahoma City. Center, two Lima Shay locomotives formerly used on a three-foot gauge lumber line in eastern Oklahoma. Bottom, one of the Katy's two-coach trains, near Altus, behind a dapper Eight-Wheeler.

have eliminated a number of sharp curves and slow-speed sections, making the route suitable for very fast operation.

Guthrie, with 10,000 residents, has the unhappy distinction of being on more abandoned railroad lines than any other town in Oklahoma. They are the Fort Smith & Western; St. Louis, El Reno & Western; and branch lines of the Katy and Rock Island. Guthrie was the capital of Oklahoma Territory and of the state until 1910, when the seat of government was moved to Oklahoma City. Many railroads built into it with the expectation that it would become the metropolis of central Oklahoma. When it became apparent that Oklahoma City was to have that advantage, the railroads which fanned out from Guthrie were torn up, one by one, until today all that remain are the Oklahoma Railway and Santa Fe's north-south and east-west lines.

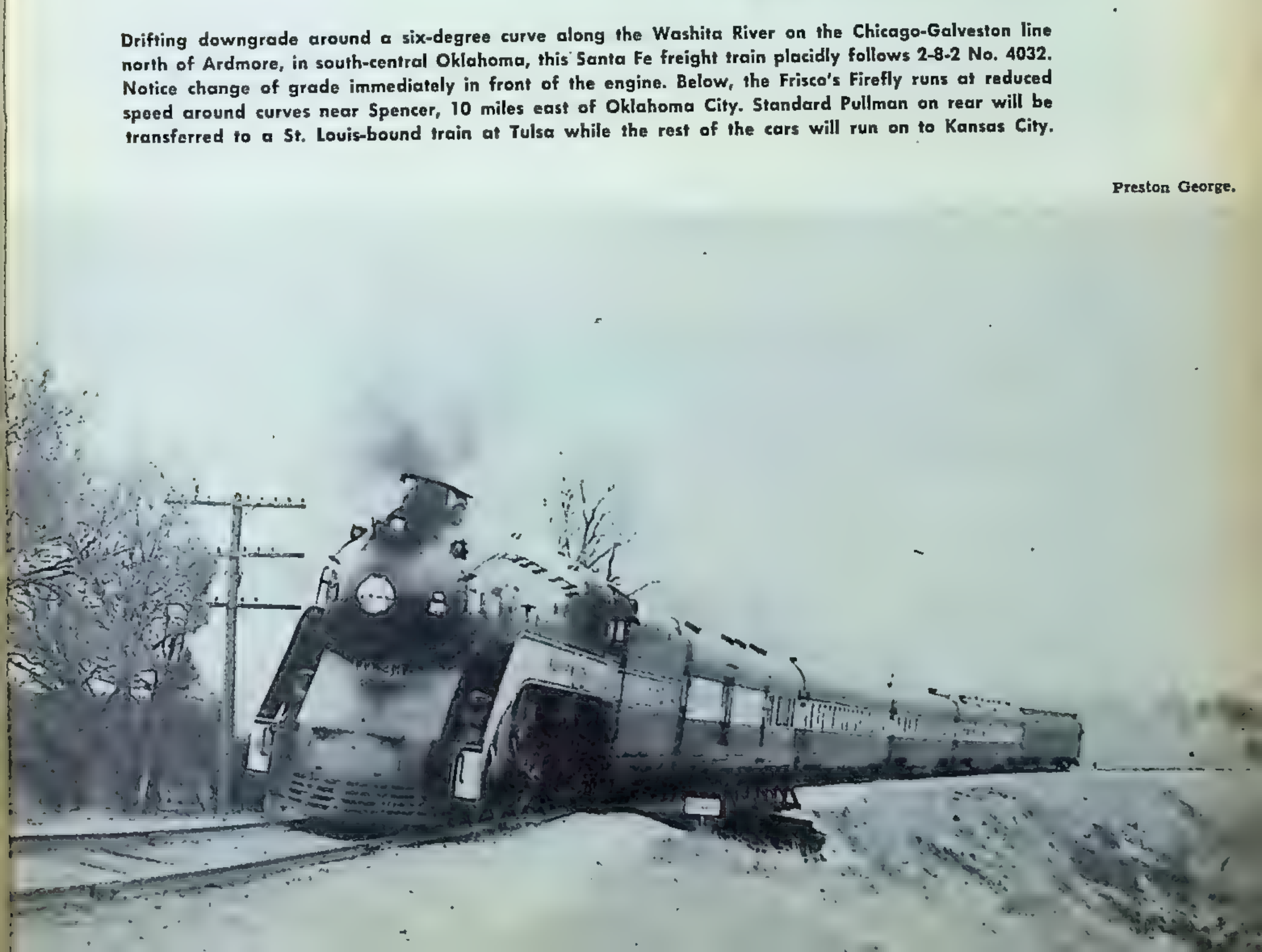
Last to go was the Fort Smith & Western, torn up in 1939. This company owned 196 miles of main line and had trackage rights over parts of the KCS and Katy, operating a total of about 250 miles of line. It was the largest independent railroad abandonment in the United States since the demise of the Colorado Midland.

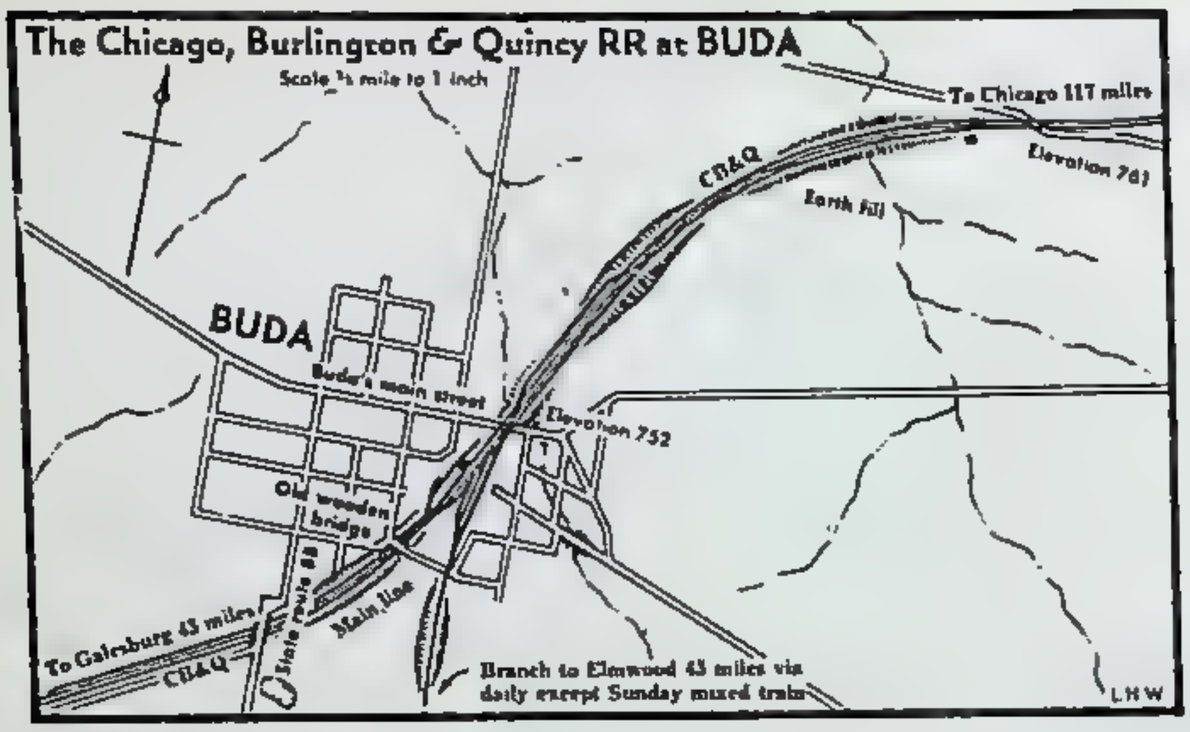
Railroading is an important part of Oklahoma industry, of Oklahoma agriculture and of Oklahoma living. Without the railroads the mines would never have attained their present output; the combine would never have become a necessary adjunct to Oklahoma wheat farming; Oklahomans themselves would enjoy little of the imports which the railroads now bring to their door. Just as Oklahoma has been good to the railroads by furnishing resources which they could transport, so, too, have the railroads been good to Oklahoma by transporting those resources to market and bringing in return those things its citizens need and desire.

Preston George.

Drifting downgrade around a six-degree curve along the Washita River on the Chicago-Galveston line north of Ardmore, in south-central Oklahoma, this Santa Fe freight train placidly follows 2-8-2 No. 4032. Notice change of grade immediately in front of the engine. Below, the Frisco's Firefly runs at reduced speed around curves near Spencer, 10 miles east of Oklahoma City. Standard Pullman on rear will be transferred to a St. Louis-bound train at Tulsa while the rest of the cars will run on to Kansas City.

Preston George.





On the Buda S

CB&Q makes a sweeping reverse curve on its main line from Chicago to "Everywhere West"

One of the interesting things about trains is the way the cars follow each other, ant-like, around curves. To a rail photographer a curve is especially intriguing because it allows him to get both a head-on and a three-quarters view at the same time.

No wonder rail-photo-fan Ira H. Eigsti takes his camera along when he visits his home town of Buda, Ill., for Buda is in the center of an S curve on the Chicago, Burlington & Quincy Railroad's main line from Chicago to the West. And the west end of the S is bisected in two places by overhead highway bridges which make it easy to obtain high angles showing the entire train.

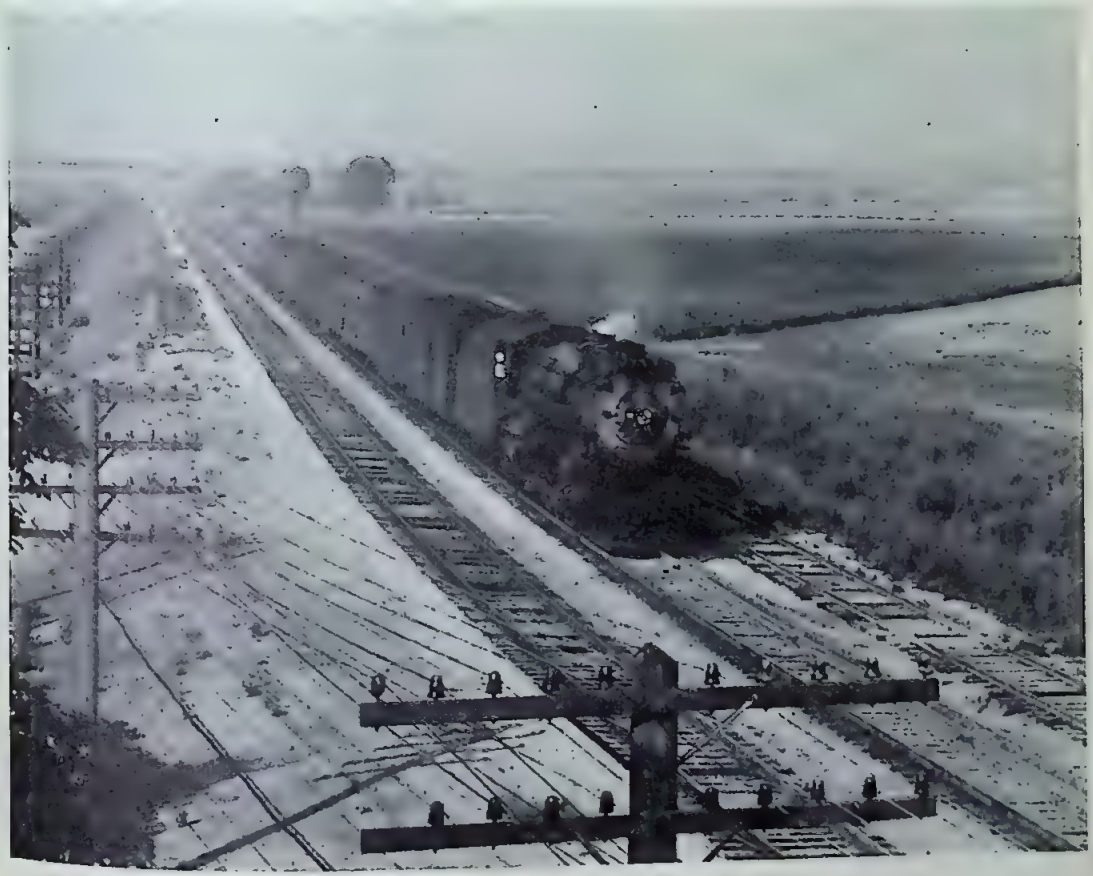
Reproduced on these and the following pages are some of Eigsti's shots of the "Q" in action. All photos, including those without curves, were taken at Buda.

Curve

PHOTOS BY IRA H. EIGSTI

Opposite page: Top, diagram of the Buda S curve. Notice the convenient placing of overhead structures for picturemaking. Center, a local passenger train on the south part of the east curve. The Buda depot is framed within the signal bridge. The train, No. 4, is eastbound. Bottom, the daily morning freight train approaches from the east, headed by a 4900-series Mikado. This page: Top, train 4 at the Buda station. The time is 8:36 a. m. and the engineer is waiting for the highball. The locomotive at right is on a westbound freight. Center, the eastbound Denver Zephyr zips through the town. At the bottom of the page is another view of No. 4 getting under way after stopping at the station. The boy on the walk is prepared to wave good-by to his uncle on the train, which here is headed eastward on the straight section forming the center of the S curve. The curve is just short of being 1.2 miles long from start to finish. Crossing gates are electrically controlled.

Photo on opposite page shows the Pioneer Zephyr negotiating the Buda curve, eastbound, 38 minutes after the photo at bottom of page 44 was taken. The freight train shown on page 44 is the same one shown in this picture, but it is now stopped on the west curve to take water. The Pioneer Zephyr was assigned to the Ottumwa-Chicago run on October 1, 1945, after its release from the Burlington's Texas lines. At top of this page, left, is the westbound passenger train which stops at Buda at 12:02 p. m., as it appears from the wooden highway bridge shown in photo at right. Because of the curve just east of the state highway crossing, many motorists had narrow escapes from high-speed trains when the crossing was made at grade, so when the road was paved a concrete overhead was built. Center photo shows the Exposition Flyer approaching the shadow of this overhead. The engine is a Hudson. At right, a westbound freight follows a Mikado under the old steel-supported wooden deck bridge. The cut at this point is said to be the first made on the Burlington, about 1857, and dirt was removed by man power and wheelbarrows. Below, No. 4 steams into the west curve on the north track, running "wrong main" because a freight occupies the south track.



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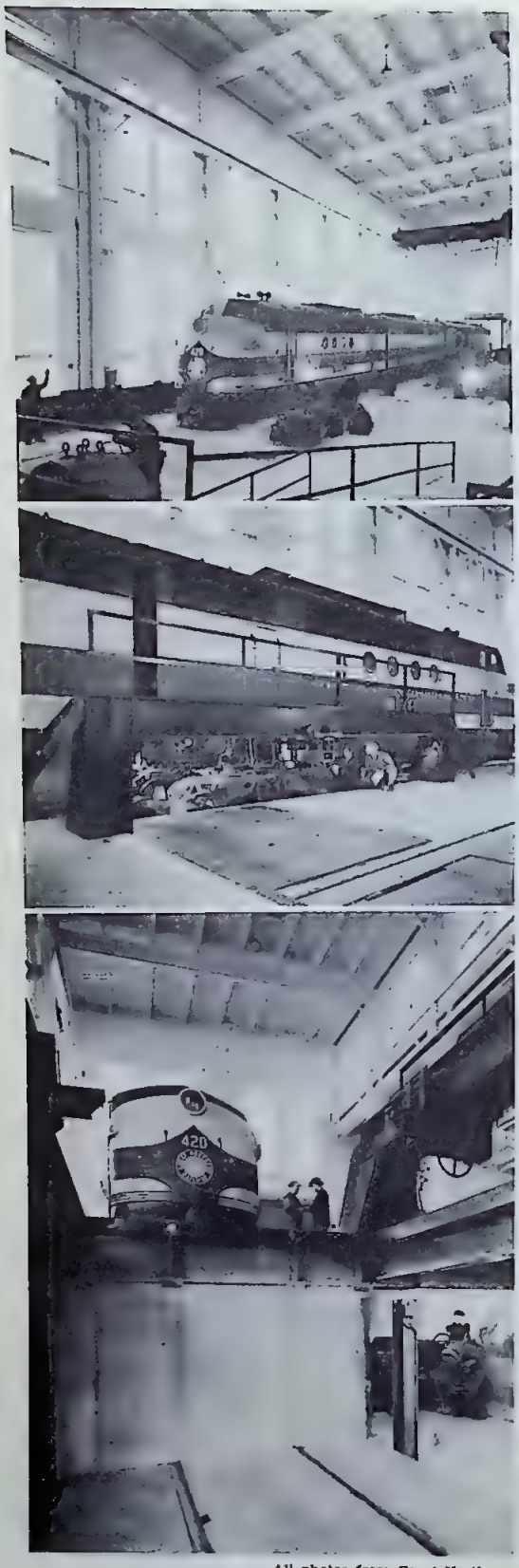
Locomotive Squarehouse

The roundhouse, with its turntable and radiating tracks which give working room around the business end of the engines, is eminently suited to the care of steam locomotives, but not so well fitted to the needs of Diesel locomotives. Thus railroads which make extensive use of Diesel power are building new types of repair and service shops. An example is the Diesel repair shop of the Great Northern Railway at Havre, Mont.

Primary function of this shop is to maintain the GN's fleet of 15 5400-horsepower, four-unit freight Diesels which operate between Havre and Appleyard, Wash., and five 4000-horsepower passenger Diesels. Routine maintenance work on the freight engines is handled progressively,

Top, day and night views of the Great Northern Diesel repair shops at Havre, Mont. Elevated concrete platforms provide working areas at locomotive floor level (left). Service tracks are laid on top of steel supporting columns (right).

All photos from Great Northern.



All photos from Great Northern.

each locomotive being held from service six to eight hours every 3000 miles for routine inspection, maintenance and lubrication.

Servicing is handled on two tracks inside the rectangular brick building, one 222 feet long and the other a through track 240 feet long. Both are equipped with pits four feet deep and 205 feet long, and the shop floor is depressed 2½ feet on the outside of the rails. Tracks are of 152-pound rail supported on short steel columns at five-foot centers, the heavy rail being used for girder strength over the gaps between the columns. The 22-inch-high open spaces between columns allow the free passing of tools in and out of the pits and also provide better entrance of light and air. Elevated working platforms line the tracks, allowing access to the locomotive at its own floor level. A two-ton overhead crane is helpful in the servicing. Pipe lines provide lubricating oil, water and air. Fueling and sanding are done outside.

The repair section has two tracks of 135 and 214 foot length, each with a 2½-foot pit 60 feet long. Tracks are of ordinary rail section on continuous reinforced concrete walls. A 25-ton overhead crane with five-ton auxiliary hoist is used for lifting engines out of locomotives. Also provided are two one-ton jib cranes with 20-foot booms. A drop table of 100-ton capacity, 23 feet in width, serves both repair tracks. Used for removing trucks or single wheels, the drop table is equipped with a body support which holds the locomotive while the table drops the wheels out beneath it. Spare trucks and wheels are stored in two 60-foot tunnels, one on each side of the drop table. Using this table, time for replacing wheels has been cut from hours to minutes. A wash rack and grease cleaning vat are also provided in the repair section.

In order to obtain maximum utilization of the locomotives, two spare freight locomotive trucks, one passenger locomotive truck, one 16-cylinder engine and one freight locomotive main generator are available for quick replacement. Repairs are then made on the defective unit after the locomotive is back in service.

Glass-brick windows supply natural light in GN's Havre shops. Top photo shows the general repair bay with the 25-ton overhead crane in use. Other photos are of the drop table which is used to change wheels. In the center picture, the table is partially lowered; locomotive body is resting on the supporting mechanism. Bottom, the drop table has been lowered to the level of the tunnel at right which is used to store spare wheels and trucks. Table is moved horizontally along rails to align with track in tunnel.

Stone Harbor Railroad

Residents of a seaside resort ran their own railroad when their commuter line was abandoned

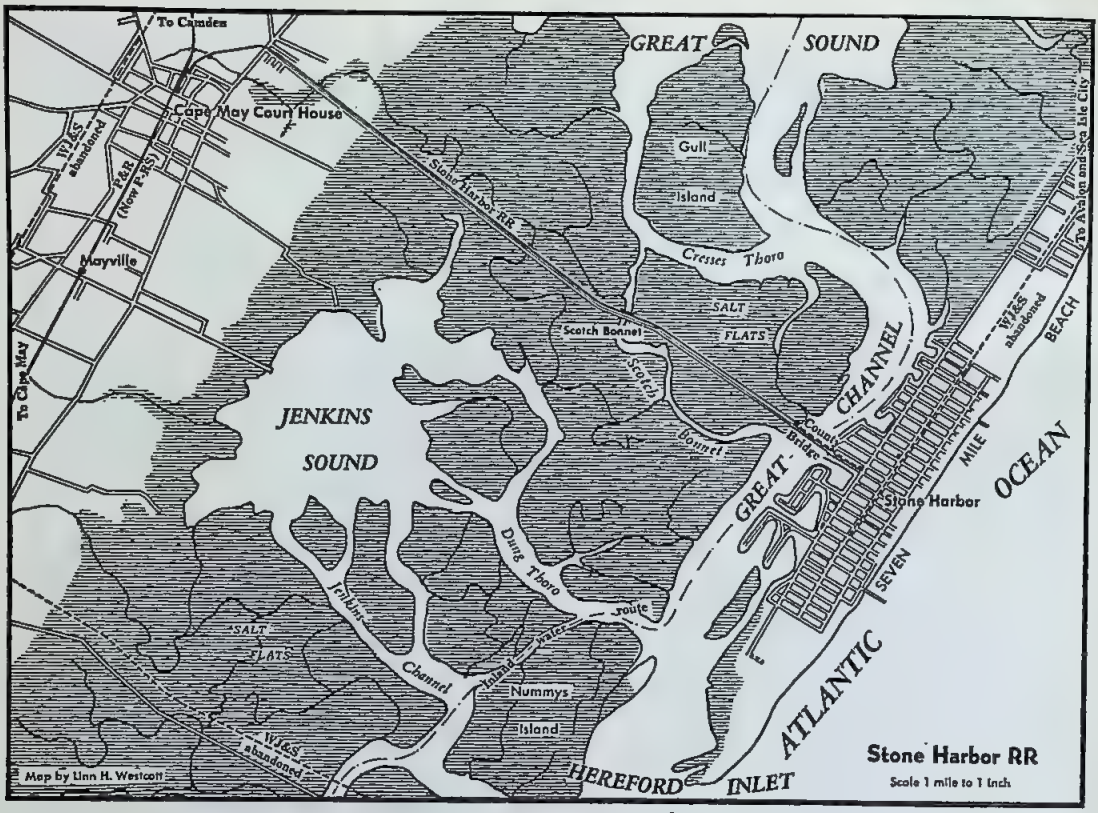
BY L. R. AND R. G. LEWIS

A passenger boarded the *Canadian National* at Winnipeg for the long trip to Montreal. As the porter took his bag the passenger said jokingly, "George, you'd better be careful this trip; there's going to be a railroad president in your car." "Who's dat?" asked George, to which the passenger replied proudly, "I am. I'm president of the Stone Harbor Railroad down in the States." Soon after the train left Winnipeg Station, George hurried to the lounge car and returned, smiling broadly, with the *Official Guide* opened to the last of the railroad pages. "You must be Mistah L. R. Lewis, suh! Here's your name right here — Stone Harbor Railroad, foah and a half miles," and with that George went into roars of laughter. For the rest of the trip the short-line prexy received service equal to that which the Canadian road's chief executive must be accorded in his private car.

But for all its "foah and a half miles," the Stone Harbor Railroad was of great importance to the South Jersey summer resort from which it took its name. Its first and perhaps only publicity release appeared in the Philadelphia newspapers of Sunday, May 29, 1921, stating in a brief and matter-of-fact way that "The Stone Harbor Railroad, recently formed by the citizens of Stone Harbor, N. J., started operation between Cape May Court House and Stone Harbor yesterday in combination with the Cape May Division of the Reading Railroad. The running time between Philadelphia and Stone Harbor has been greatly reduced and only one change of cars is necessary. The service between Cape May Court House and Stone Harbor is provided through means of a rail motor omnibus. All-year service is planned."

Behind that terse statement lies a story of grim determination on the part of a railroad's patrons not to be let down when that railroad gave up the ghost back in 1917. The Stone Harbor Railroad, as such, succeeded the electrified Stone Harbor Terminal Railroad, which was opened to traffic in 1915 and was abandoned but not dismantled in 1917. Its terminal at Stone Harbor, already served by a branch line of the West Jersey & Seashore Railroad, had a year-round population of scarcely 400. Its opposite terminal, where it made connection with the Reading-controlled Atlantic City Railroad, was the town of Cape May Court House, with a population of 1500. The only intermediate station was Scotch Bonnet, a collection of fishing shacks not large enough to deserve mention on Rand McNally's detailed map of the Garden State. But Stone Harbor is situated on a long narrow island, flanked on one side by the Atlantic Ocean and on the other by the Great Channel, and boasts that its Seven Mile Beach is the finest on the coast. It is for this reason that its summer population swells ten-fold, and in addition to many Philadelphians who vacation or week-end there, some half a hundred own summer homes at the resort and commute daily throughout the season.

The Stone Harbor Terminal's brief existence was rather uneventful, except for its attempt to operate an electric locomotive in addition to its one passenger car, a former Philadelphia Rapid Transit double-trucker of the 2000 series. A big 75-ton motor was purchased, sight unseen, from a West Virginia mine road. Its purchasers were overwhelmed at its size when it arrived on the Reading's local freight. The county's entire population was on hand to witness the maiden trip. The controller was barely on first notch when the circuit breakers went out at the Cape May Court House power station. Subsequent attempts to operate the engine, with all other power circuits de-energized, succeeded in getting it into motion, but no farther than the 30-degree curve a few hundred feet from the station, where she repeatedly took to the ties. The engine never did manage to get any farther. It was determined that its use would require enlarging the county powerhouse, realignment



of the Court House curve, and much trackwork, so it was sold back to its original owners with considerable loss to the Stone Harbor Terminal. Operations were not profitable and the ill-fated line ended its career with the summer of 1917.

In the fall of 1920 a public meeting was called in the Stone Harbor borough hall to promote the further development of the resort. The question of transportation to and from Philadelphia predominated. The local citizenry was not satisfied with the service offered by the West Jersey & Seashore, which generally required changes at both Sea Isle Junction and Sea Isle City and which took considerably longer than would a service connection with the Reading trains at Cape May Court House. A motion was made to investigate the possibilities of reopening the old Stone Harbor Terminal Railroad and a committee found it would be necesary to replace approximately 5000 crossties, add 40 carloads of cinders to the roadbed, and repair the two channel bridges.

Contact was then made with the Reading Company to enlist its help in the rehabilitation

R. G. Lewis, 210 Georges Lane, Philadelphia 19, Pa.

Map shows how the Stone Harbor railroad saved time, miles and tempers for residents of the Stone Harbor resort area by connecting Stone Harbor directly with the mainland. Although equipment was far from comfortable and could hardly be classed as speedy, the railroad had the advantage of an air-line route from connection with the Reading at Cape May Court House. At left, Superintendent-Motorman Jerry Alexander (standing in doorway) poses with passengers in front of No. 101 at the Stone Harbor railhead. No. 101 was powered with a 40-horsepower Mack engine. On opposite page, like an ant with a huge crumb of bread, the tiny Cummings gas-electric locomotive wrestles with three Reading Company coaches. This photo was taken in Stone Harbor.

of the line and to obtain a favorable agreement for a percentage of through fares, based on the fact that the short line would be the originating and terminal carrier for traffic to and from the big railroad at the connection. The Reading was most co-operative and a very favorable contract was submitted. The Stone Harbor Railroad was formed and L. R. Lewis was elected president; James Thompson and Fred Fleck, vice-presidents; J. B. Lichtenberger, secretary-treasurer.

Bonds were sold to finance repairs and equipment, and within a few days $44,000 was raised. Contracts for repairs to the road and bridges were quickly executed and the work progressed rapidly. The next step was selection of rolling stock, and after investigation it was decided to try a "rail motor omnibus." This was purchased from the J. G. Brill Company, Philadelphia, which made prompt delivery of car No. 100, an odd-looking bus on rails measuring less than 30 feet over all and with a wheelbase of 16½ feet. It sported an imposing cowcatcher, a four-wheel lead truck, and a single-axle power truck at the rear. Its four-cylinder 40-horsepower gasoline engine was built by Mack and it had four speeds forward, four in reverse. Until a turntable was constructed at Stone Harbor, the car was operated forward in one direction and at full speed in reverse on the return trip.

While the rail car was no luxury liner and rode hard with its rattan seats, taking the curves in little bites and feeling out each rail joint, it served its purpose well and might be termed the granddaddy of our present-day self-propelled rail units. It was operated by one man, who also collected tickets and fares, flagged both ends, and, in his spare time, executed the duties of superintendent.

Due to increased travel it was soon necessary to duplicate this unit, and an identical car, No. 101, was purchased from Brill. Still later in the season traffic increases forced the purchase of six single-truck cars, at a cost of $250 each, from the Washington Railway & Electric Company. Four of these little cars were closed trailers, built in 1892 by the Stephenson Car Company for the Washington & Georgetown Railroad (later part of the Capital Traction Company) for service on the 14th Street and the Pennsylvania Avenue cable car lines. In 1897 they were converted into electric car trailers and continued in this service until 1912. Two of the cars were 10-bench open motor cars, built by the St. Louis Car Company in 1897 for the Capital Railway (later part of the Washington Railway & Electric). After gathering nine years of dust in a Washington car barn, these venerable little units were shipped to Cape May Court House, revarnished and put in first-class condition. They went into service on the Stone Harbor Railroad late in the season of 1921, being pulled by the rail omnibuses and performing satisfactorily, rounding out nearly half a century of service before they were finally retired in 1930.

The cost of renting a steam locomotive from the Reading being too high, freight on the Stone Harbor Railroad was handled by an 0-4-0 gas-electric engine of five-foot wheelbase, built by the Cummings Machine Company at Minster, O. Weighing 15 tons and powered by a six-cylinder Wisconsin gasoline engine generating 250 volts for the two 25-horsepower General Electric traction motors, its maximum speed was 20 miles per hour. Tests of this unit proved it to be capable of hauling three loaded box cars at approximately 10 miles per hour with a short ruling grade of 2 per cent.

The management received many inquiries from other roads about the gasoline rail equip-

R. G. Lewis.

ment, among them the Reading Company, the Middletown & Unionville, the American Railroad of Puerto Rico, the Virginia & Carolina Southern, and the New Mexico Central. The Pennsylvania Railroad assigned two technicians to make a detailed survey of operational statistics of the rail omnibus, and their findings are of interest:

Average gasoline consumption, 10 miles per gallon.
Average maintenance costs, $150 per year.
Average mileage, 12,500 per year.
Average time for 4½-mile trip, 14 minutes.
Weight of car, 6 tons. Car seated 31 and could be coupled with trailer seating 24.

The Stone Harbor Railroad, with its adoption of gasoline-driven passenger and freight equipment as early as 1921, can truly be named as one of the pioneers in its use.* As a result of the successful operation over this short line, many other railroads purchased similar or larger units for branch-line operation, forestalling the abandonment of rail service.

The president of the Stone Harbor once held conference with the president of the Reading Company. Asked the late Agnew T. Dice, "How many employees does the Stone Harbor Railroad carry on its payrolls?" To Lewis' reply, "Two and a half," he asked in amazement, "How could that be?" The answer was, "There's Jerry Alexander, the motorman-conductor, Howard Steitz, the extra conductor and freight motorman, and John Way, the one-legged crossing watchman at the state highway crossing."

Like most other short lines, the Stone Harbor had its "gremlin." It appeared in the form of the powerful and undermining force of the tide, which twice daily reversed its unrelenting efforts to attack the piers and pilings of the channel bridges. It was this force which eventually doomed the railroad. On inspection of the bridge one season, it was found that the concrete piers had been seriously eroded at the floor of the channel. The aid of the Reading's engineering department was summoned. Its assistant chief engineer, the late Colonel Frederick Jasperson, had just ended a trip to Europe and recommended a practice he had observed in use on the continental railways. Two divers were employed and carried down unbroken bags of cement which were crammed into the cavities and allowed to harden in position. The experiment was successful and costly renewal of the bridge was forestalled. This battle with the

* Contemporary experiments with the Brill rail omnibus were made by the Chesapeake Western Railway and the U. S. Engineers at Camp Humphreys, Va.

Demotorized and relegated to trailer service on the Stone Harbor Railroad, this open bench St. Louis car carried passengers in Washington, D. C., way back in the gay '90's.

R. G. Lewis.

R. G. Lewis.

Combining the ancient with the modern, the Stone Harbor towed 1892 cable-car trailers behind a then novel gas-electric.

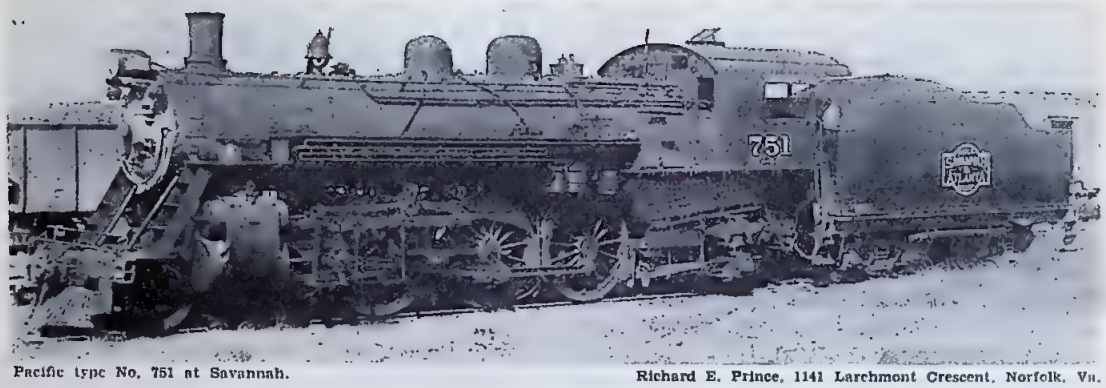
elements had its lighter side, too. After a hard day's work, one of the two divers sought diversion at a borough speakeasy, imbibing excessively of the potables which probably had been smuggled directly into Stone Harbor. In spite of a bad hangover, he reported for work the next morning and went below with cement bags. After he had been down considerably longer than usual without signaling to be pulled up, the other diver was sent down to see if he was in danger. Upon reaching the bottom, he found his partner asleep in the deep, while his co-workers above labored to keep a supply of fresh air coming down.

Traffic reached its peak in the summer of 1926 and the company prospered modestly. The little road hauled about 5000 passengers a month during its zenith. Building booms during the late '20's brought many carloads of lumber into the town and the little freight engine was kept busy hauling cars and occasionally even drawing trains made up of the old trailer cars to accommodate heavy week-end passenger travel. Heavy traffic during the summer week end in 1927 necessitated the rental of Reading's gas-electric car No. 98. On one occasion the little Cummings engine pulled three Reading wooden coaches, which dwarfed it, and while it was capable of performing the job, it was too slow and was not used regularly for this purpose. For special parties the Reading sometimes brought its steam engines, usually high-wheeled Atlantic-type camelbacks, and coaches through from Camden into Stone Harbor. This always caused much local excitement.

But highway bus and private car competition, along with the economic depression, brought declining traffic. The motive power and rolling stock became worn and required renewal. Then in 1931 the tide-battered county bridge, over which entry was made into the borough, was rebuilt for highway use only, thereby excluding the Stone Harbor Railroad from its terminal. For a short time operations were continued to the west end of the bridge, and passengers were obliged to go the rest of the way by taxi or on foot. All this brought about a decision to sell the road to the Reading Company, and this was done in April, 1930. Passenger service by gas-electric car was operated until the end of 1932, when highway bus service was substituted.

In 1933 the Cape May Division of the Reading Company was merged with the Pennsylvania Railroad's West Jersey & Seashore Lines, and formed into the Pennsylvania-Reading Seashore Lines, which in turn fell heir to the 4½-mile Stone Harbor line and today operates to the west end of the channel bridge, the only traffic consisting of occasional carloads for the lumber yard located there. This service is performed by the P-RS local steam freight.

So ended a truly worth-while effort for better transportation.



Pacific type No. 751 at Savannah.

Richard E. Prince, 1141 Larchmont Crescent, Norfolk, Va.

Let's Toast to the S&A

As a long time reader of your magazine, I want to protest. Not that it will do much good, but Mr. Beebe's letter in your August issue has hurt us to the quick. Bride of the Sylvania Central, indeed! We only hope that as such he (what kind of a bride is this?) will lure it away from its present location, for it has been in our thinning hair all too long.

We are one of those roads which apparently is neither fish nor fowl nor good red herring. Too big to be a real short line, too little to be a trunk line, with all the problems of both. People write of and photograph the Live Oak, Perry & Gulf; Collins & Glennville; Tonopah & Goldfield, etc., and go into ecstasies over the New York Central; Pennsylvania; Baltimore & Ohio; Santa Fe; Union Pacific and others, while we are merely the workaday drudges without glamour or color. 'Tisn't fair.

Let Mr. Beebe take the Sylvania Central away — far away — on a joyous honeymoon. It is solely and directly responsible for our ruling grade eastbound, crossing us at the bottom of a tough hill to get over. We, unfortunately, are the junior line and can hardly make them move.

Wrightsville & Tennille, indeed! It was built by our founder years ago and he, realizing his folly, sold out and ventured forth bravely again as a rail magnate to build a part of our line. (He sold out again and made a third effort, and that time the sheriff did the selling.) Two of the Wrightsville & Tennille engines came from us, after the cruel highway department paved a road paralleling our line (on right of way in places), and our valuable (?) passenger traffic dwindled to an occasional demand for a four-mile ride.

Even you ignore us. The album of southern roads leaves us looking hungrily at scenes of our big and little neighbors. We feel slighted, ignored, a wall flower, and our dignity is trampled upon. Our ego has become minus and great sorrow reigns in our house. Ask Mr. Beebe to take just one picture, that we may again take hope (even if the camera isn't loaded).

C. E. Gay III, First Vice-President
Savannah & Atlantic Railway Company

P. S. Although a vice-president, I cannot afford to offer to bribe either one of you with food.

The Savannah & Atlanta Railway Company is a reorganization of the Savannah & Atlantic Railway, which traced its ancestry back to the Brinson Railway, incorporated in 1906. The present company was incorporated November 21, 1938.

The S&A is a Class 1 railroad running 141.63 single-track miles from Savannah, Ga., to Camak Junction, Ga., thence by trackage rights over the Georgia Railroad to Camak, 2.36 miles farther. Practically all its revenue is derived from freight; prewar years 1940 and 1941 showed only 1673 and 1912 revenue passengers carried on the single mixed train which makes a daily trip each way between Savannah and Waynesboro, 96.1 miles. The road owns but four passenger cars.

Connections are made at Savannah with the Atlantic Coast Line, Central of Georgia, Seaboard, and Southern; at Sylvania (57.5 miles from Savannah) with the Sylvania Central; at Waynesboro (96.1 miles) with the Central of Georgia; at Torbit (108.1 miles) with the Georgia & Florida; and at Camak with the Georgia Railroad which runs west to Atlanta. Its 13 locomotives and 324 nonpassenger cars are kept busy feeding freight to the connecting railroads and interchanging freight among them. The railroad also operates 26.43 miles of industrial tracks.

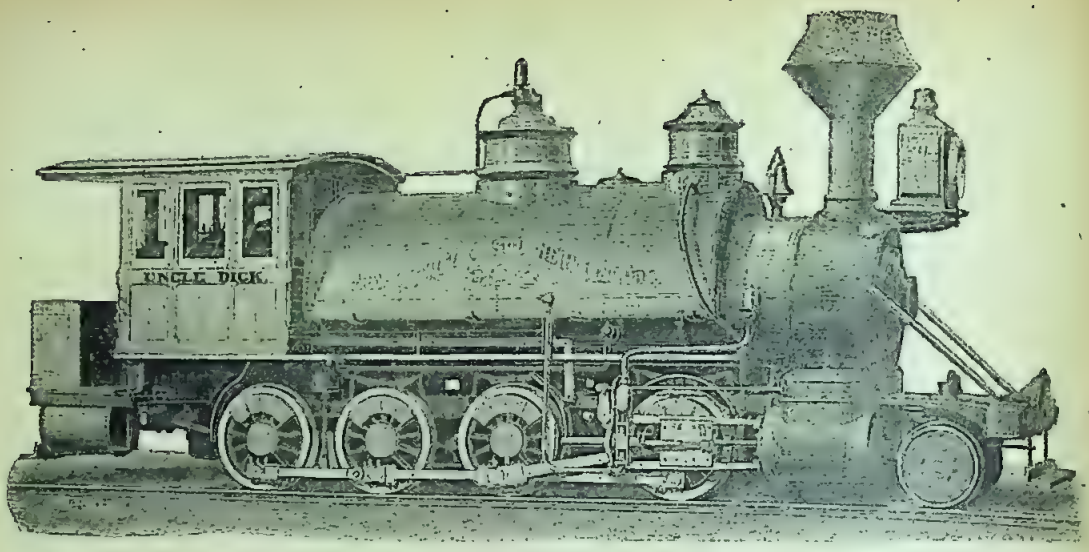
Trains at Pen Mar Park

In the long ago when every park or resort was at the end of a car line, General John Mifflin Hood built Pen Mar atop the Blue Ridge Mountains as an attraction for passengers on his Western Maryland Railway. The *Blue Ridge Express* carried people here by the hundreds, especially on week ends. Photo courtesy *Wheels*, American Car & Foundry Company.

Supplement facing page 58

William Barham, 1625 S. New Hampshire, Los Angeles 6, Calif.

Electric operation on a steam railroad is more or less commonplace, as witness the electrified sections of such lines as the New York Central, the Milwaukee Road, Illinois Central and others. But steam operation on an electric railroad is an iron horse of another color. That such operations do take place, however, is illustrated by this photo of a Pacific Electric way freight climbing a stiff grade on a small branch line near San Pedro, Calif. The leased locomotive, Northwestern Pacific No. 113, is an old 4-6-0 passenger engine.



UNCLE DICK

— *OR* —

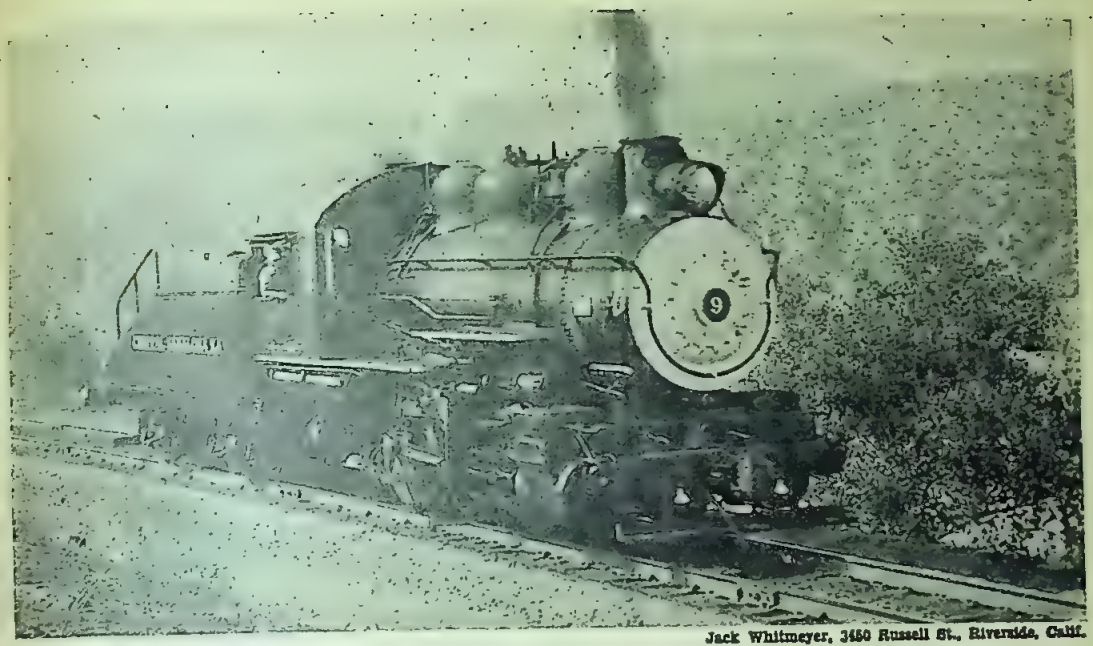
A Monster Locomotive-Engine

Only locomotive on the Santa Fe ever to bear a name as well as a number, *Uncle Dick*—named for "Uncle Dick" Wooten, who owned the toll road over Raton Pass (Aug. '46 TRAINS)—was the largest locomotive ever built in the United States when turned out of the Baldwin shops in 1878. A tank engine, it was designed for use on the Raton Switchback before the first tunnel was built in 1879.

The Raton Switchback was 2¾ miles long, with maximum grades of 6 per cent. Over this tortuous route *Uncle Dick* alternately pushed and pulled nine loaded cars while tunnel construction was in progress. After abandonment of the switchback, *Uncle* was rebuilt into a conventional 2-8-0 and put into passenger service, handling the *De Luxe Express* over the pass.

Uncle Dick attracted much attention while being transported from the locomotive works to the scene of its first travails. Said the Pittsburgh *Telegraph* of December 28, 1878:

"A huge specimen of locomotive art passed through here yesterday towed by other locomotives, on its way to the Far West. It is a monster tank engine for the New Mexican & Southern Pacific Railroad [Atchison, Topeka & Santa Fe] and is specially intended to work on a long heavy grade at a point in the Rocky Mountains. It is the largest and most powerful locomotive engine ever built in this country. It is a 10-wheel tank engine of consolidated pattern, having eight driving wheels and a pony (two-wheel) truck. The cylinders measure 20" x 26", and the driving wheels are but 42 inches in diameter. The boiler is enormous, being straight, 58 inches in diameter. It has 213 tubes, each over 11 feet long. The firebox is about 10 feet long. A water tank, almost the entire length of the boiler, rests on top of the engine, and when filled with water will add considerably to the weight. The truck wheels are 30 inches in diameter, and are of paper, with steel tires, similar to those now being used so extensively under the Pullman sleeping cars and on the Metropolitan Elevated Railroad, New York. This engine, when in working order, will weigh 118,000 pounds. The great weight and size of the boiler and the small driving wheels combined, form a tremendous power, well suited to the work the engine has to perform. The eight driving wheels are merely to distribute the weight, for if the weight rested on but four, no track ever laid could withstand the pressure. The weight is so great that the western railroads over which it must pass will not permit it to go over bridges, so it will have to be taken to pieces and carried over in sections. It passed over all the bridges of the Pennsylvania road without being dismantled." The locomotive was *Uncle Dick*.



Jack Whitmeyer, 3450 Russell St., Riverside, Calif.

Orphaned when San Francisco's State Belt Railroad of California forsook steam for Diesel power, 0-6-0 No. 9 went to the shops and emerged with a new paint job as No. 9 of the Central Sanalona, South America. Here she is chuffing easily up the San Timentio Canyon near Redlands, Calif., on her way to Dallas, Tex., where she was loaded on a steamship.

Rail Benders

Although the term "rail bender" colloquially means a switchman, a more accurate definition would be that it is just what its name implies — a device for bending rail. Curved rail is not supplied by the foundries. When a track-laying crew comes to a sharp curve in the right of way, the rail bender is brought into use and straight rails are made to conform to the curvature. One of the most commonly used types is the jack type, which consists of a sturdy steel clamp, one end of which fits over the head of the rail while the other is notched to receive the cap of a special jack whose base is placed against the side of the rail. As the standard of the jack is raised, the rail bends without heating. Two men can bend rail as heavy as 130 pounds. Another type is equipped with rollers for the continuous bending of rails.

It is not necessary to bend rails for laying on ordinary mainline curves so the jack is used mostly in yard and other special work.

Train-Auto Interlocking

The Monon runs right down the middle of 15th Street in New Albany, Ind., just like a street car line. At each of five intersections the railroad had lots of trouble with automotive traffic until its signal engineer hooked up regular automobile traffic signals at all five corners and tied them in with short railroad track circuits so that as a train approaches the signals turn green for the railroad and red for the cross-street traffic. The signals stay green for the train until the last car passes and then immediately resume their normal stop-go cycle.

Capacity and Load Limit

Capacity and load limit figures, stenciled on the sides of every freight car, seldom agree, although to a layman the two terms may mean the same thing. Actually, when the B&O stenciled "Capacity 100,000 pounds" on its hopper car No. 30243, it was referring to the car's nominal rating according to design and classification. When it added "Load limit 128,300 pounds," it was stating how much poundage the car can actually carry, being limited only by the carrying capacity of the running gear. Load limit also varies with the light weight of the car, and so is never stenciled on until *after* the finished car has been weighed. In any one series of cars load limit and capacity always add up to the same total.

RUNNING EXTRA

In the northwest section of our business office is a station known as Calcuteria ad Hysteruum, so named because it is the place of calculating by hysteria. In short, it is the sanctum of the head bookkeeper, Shirley Hackbarth, brunette, 105 pounds, five feet four, who operates the Burroughs machine at which she is shown seated.

Shirley joined the staff on March 1, 1945, with very little knowledge of the publishing business. She is now more than thoroughly acquainted with it. It seems that one way to learn about the relationship between a publishing house and the readers of its products is to be a part of the bookkeeping operations. People really let their hair down, and Shirley, in handling accounts-receivable and disbursements ledgers, gets to know hundreds of our readers and dealers almost firsthand. She needs — and has — the diplomacy of a hostess, the price knowledge of a stock exchange expert, and the ability to understand (from what seems to the uninitiated to be a pile of cold figures on little invoices and statements) exactly the condition both of the customer's book and magazine stock and of our ability to fulfill his wants.

Shirley was elected to Quill and Scroll, the international honor society for high school journalists, while attending Janesville (Wis.) High School. Since joining the staff she has become a train and model railroad enthusiast and has been searching local hobby shops for special decals for a certain model railroader named Kenneth. Any day now this column expects to see that Burroughs bookkeeping machine pounding out the numbers of cars in a freight consist that are unavailable in decals so that Kenneth can complete a box car or two.

That Burroughs machine, incidentally, is some piece of apparatus. It not only adds and subtracts but multiplies and figures percentages, automatically prints the date and at one stroke writes such frequently used words as "discount," "cash," "TRAINS," and so on.

Railroad

More About Colorado

"Back in the 1880's," writes Roy G. Clark in "Denver Streamliner," July TRAINS, "such lusty characters as Colonel Bob Ingersoll, George Pullman, Colonel Buffalo Bill Cody, Wilson Misner and Silver Dollar Tabor used to meet here to greet and speed friends." *Silver Dollar* Tabor was the *daughter* of the famous H. A. W. ("Haw") Tabor by his second wife. Tabor was the Leadville silver mining king who made and lost $15 million between 1878 and 1900; had it not been for his appointment as postmaster of Denver about 1900 he would have died a pauper. . . . Mr. Clark's guides merely hinted at the colorful history of Central City. They might at least have told him a couple of authentic bits of its history — might have shown him the famous Face on the Barroom Floor in the Teller House — might have shown him where silver bullion was put down for President Grant to walk on when he visited there! The Central City Masonic Lodge Hall is one of the showplaces of America, now open to the public for a small fee.

Don P. Jenison, 4020 Arizona St., San Diego, Calif.

In other national publications there is too much of Texas. In TRAINS there is too much of Colorado.

Raymond Lowry, 719 S. 30th St., Omaha 5, Neb.

Fairbanks-Morse Diesel

I see by TRAINS for July that the Union Pacific bought the Fairbanks-Morse Diesel it was testing. I believe that this locomotive pulled the troop train that I rode home to discharge. It handled us into Salt Lake City. I caught glimpses of it on some of the curves in Nevada and clocked her at over 80 several times. The consist was 17 or 18 cars, mostly tourist sleepers with about 6 troop sleepers and kitchen cars.

Larry Wright, Lacon, Ill.

Air Conditioning, Old Style

It must have been awfully hot that day of the trip described on page 45, August TRAINS. The story says "two dozen electric fans" were in the baggage compartment. Whew!

Charles Miller, Covington, Ky.

Circus Trains

The Clyde Beatty Circus was stranded in Palo Alto, Calif., by the rail strike, but had the foresight to move its cars ahead to the next stop. The first night the show moved six miles over the highway via elephant power and hired trucks to Redwood City, where it stayed two nights instead of the scheduled one, missing only one scheduled move, to Napa. . . . Another railroad show is the West's famous carnival troupe, Foley & Burk Combined Shows, which always operates circus-style over the rails although its usual stop is for a week at a time. Standard circus flats and circus-type wagons are used to move the rides, side shows and concessions to such famous western events as the California State Fair and the Salinas Rodeo.

Francis Guido, editor, the *Western Railroader*, San Mateo, Calif.

Reader Contest

Reader contests being popular with you, why not offer a prize for unscrambling the first seven lines of heavy print in the lower left-hand corner of page 31, August TRAINS?

Major Bird, 450 Dennis St., Adrian, Mich.

["Raton Pass is a historic high point on the old Santa Fe Trail. The modern Santa Fe must climb the 3½ per cent grades to the highest point on the system at 7587 feet merely to pass over a spur of the east flank of the Rockies. . . ."—*Ed.*]

Mail

Black Diamond Turns to Oil

For the past 30 years, Pacifics have done a fair job of hauling the Lehigh Valley's famous *Black Diamond*, but any train over 10 cars calls for two K-6's if it is to maintain schedule, and thus many Lehigh Valley trains have to be double-headed. Between Wilkes-Barre and Mountain Top the *Black Diamond* always needs a helper to make the 3 per cent grade. Pacifics are not the last word in motive power by any means. Recently a beautiful silver 4000-horsepower Alco Diesel-electric has been alternating on eastbound and westbound *Black Diamond* trains, and has handled 12 cars over the 3 per cent grades without help. Descending the steep grades, there are no more red-hot brake shoes and smoking wheels. The electric brakes reduce expense and make riding more pleasant in mountainous regions.

Jerry Fluegel, Wilkes-Barre, Pa.

[Electric brakes on a Diesel-electric operate much as do regenerative brakes on a straight electric locomotive. However, they do *not* put fuel oil back into the tanks.—*Ed.*]

This Ends the Oahu Controversy

Perhaps I can shed light on the recent controversy relative to Boston, Revere & Lynn coaches on the Oahu Railway. Kent Cochrane is right, I believe, in his statement that there are no BRB&L coaches on the Oahu. However, four narrow gauge coaches belonging to the Navy Department, Bureau of Yards and Docks, are used in intra-yard passenger movements on the Pearl Harbor Navy Yard Railroad. Two of these coaches are definitely ex-BRB&L rolling stock.

Robert G. Lewis, District Freight Office, Pennsylvania Railroad, Akron 8, O.

Dirty, Oily, Greasy Iron

I took employment with the Southern Pacific last August as a machinist. I now really know what makes them tick. I've been on top, around the sides, under the boiler, above the axles, in the pit underneath; I often work in the smokebox and on one occasion had to crawl into a Mallet firebox which would make a fair-sized bedroom. But, where is that glamour I used to connect with the iron horse? It has degenerated into a pile of iron — dirty, oily, greasy iron. There may be life and individuality when the needle is on the mark, but there is nothing deader than a dead engine.

Howard W. Lange, 5227 Barker Dr., Los Angeles 42, Calif.

A Successful Fan Trip

Please accept the sincere thanks of the Midwest Chapter, National Railway Historical Society, for the generous publicity you gave us in connection with our trip over the interurban lines of City Lines of West Virginia on July 14. We answered 350 inquiries about the trip; close to 90 turned up at Clarksburg and we used two cars to handle them. They came from Chicago, from New England, and from many points in between. No one traveled less than 150 miles to get there and home again, and most of them much more.

Stephen P. Davidson, 902 Swann St., Parkersburg, W. Va.

Long Passenger Train

I'd be interested to know if any readers have seen any longer passenger trains than the troop train I came East on last June. From Chicago to Pittsburgh we were part of a 35-car train consisting of 17 milk cars and 18 troop sleepers. We were powered by a T-1 4-4-4-4 to Crestline, O., an M-1 4-8-2 to Beloit, O., where it was replaced because of a hot pin by a Mikado to Pittsburgh, where the train was split for the run over the Alleghenies.

Walter G. Wells, 154 French St., New Brunswick, N. J.

SECOND SECTION

The railroads of America carry far more "freight" than the lading in their cars. Not only do they pay enormous taxes, which in effect reduce taxes for the rest of us, but they also share the expense of getting out magazines like TRAINS through purchase of advertising space. This is not a subsidy, for the railroads get their money's worth in their advertising purchases. But the fact remains that advertising revenue plays an important part in the publishing of a magazine, so the railroads, through advertising, help "carry the freight" for TRAINS, and thus you passengers — readers — get a far better magazine than if it were supported by your "fares" alone.

* * *

Experienced train riders use the seat check as a clew when looking for seats in a crowded train. The through passengers usually have checks of a distinctive color or punching, and a quick look will then establish which passengers may be expected to get off in the near future. Sometimes station numbers are penciled on checks by the conductor; other times the number of punchmarks shows how far the passenger may go. Whatever the system, comparing your own check with others will help.

* * *

Scratchboard illustrations — the kind used in "Shadows of the Sandy River," August TRAINS — are made on a special type of drawing board on which a coating of white clay is the drawing surface. After the artist has put in various black areas with pen or brush and ink, he scratches out white lines or textures with knives, needles and scrapers. The technique allows a considerable amount of detail to be worked in, and therefore is more suited to railroad illustration than many other processes.

TRAINS first used scratchboard illustrations in the May, 1944, issue and has used them from time to time since. The illustrations in the Sandy River article were made by Francis Lee Jaques, well known for his wild-life illustrations, particularly of the northwoods country. Jaques also does covers (but not in scratchboard) for the *Saturday Evening Post* and other magazines. The ferry boat illustration in the August issue of TRAINS was made on scratchboard by our artist Al Timler. Other scratchboard sketches appear on our contents page each month.

* * *

Don't forget to mail your entry in our current photographic contest. October 31 is the dead line. Rules were printed in the June and September issues. You can send in more than one entry.

KALMBACH PUBLISHING CO.

1027 N. 7th St., Milwaukee 3, Wis.

C.B.&Q.

Whether you are CLEVER BRIGHT & QUICK or just an ordinary mortal like most of us you'll go for miniature railroading — the hobby that never grows old for young or old. Mantua Model railroad cars and locomotives are the stuff of "railroad empire." See your hobby dealer, ask to see Mantua equipment — he has it.

Thanks to C. B. & Q. a great American railroad, affectionately known as the "Q" Line in the territory it serves.

Write for our booklet on miniature railroading and our prewar catalogue—25c

Pioneer and Leader in HO gauge

MANTUA METAL PRODUCTS CO.

WOODBURY HEIGHTS • NEW JERSEY

More "Shortest Railroads"

According to the Association of American Railroads, the shortest line-haul railroad in the United States is the Valley Railroad, one mile long, operating at Westline, McKean County, Pa. It derives all its revenue from freight and switching services. Shortest railroad in the country to perform freight, passenger, express and mail service is the Beaufort & Morehead, running the three miles between Beaufort and Morehead City, N. C. Other short railroads performing all four services are:

Sandersville Railroad, Sandersville, Ga., 4 miles long.

Dardanelle & Russelville Railroad, Dardanelle, Ark., 5 miles.

Quincy Railroad, Quincy, Calif., 6 miles.

Rock Port, Langdon & Northern Railway, Rock Port, Mo., 6 miles.

Talbotton Railroad, Talbotton, Ga., 7 miles.

Roller Coaster Route

Mikado type locomotives on the Fairport branch of the Baltimore & Ohio Railroad can haul 80 cars of freight, but not 60-car trains! This unusual situation arises because the grades are so distributed that part of an 80-car train is always on a downgrade and helping to push the rest of the train uphill, but a 60-car train may be all on the uphill side at once.

LIMA
LOCOMOTIVES
for France

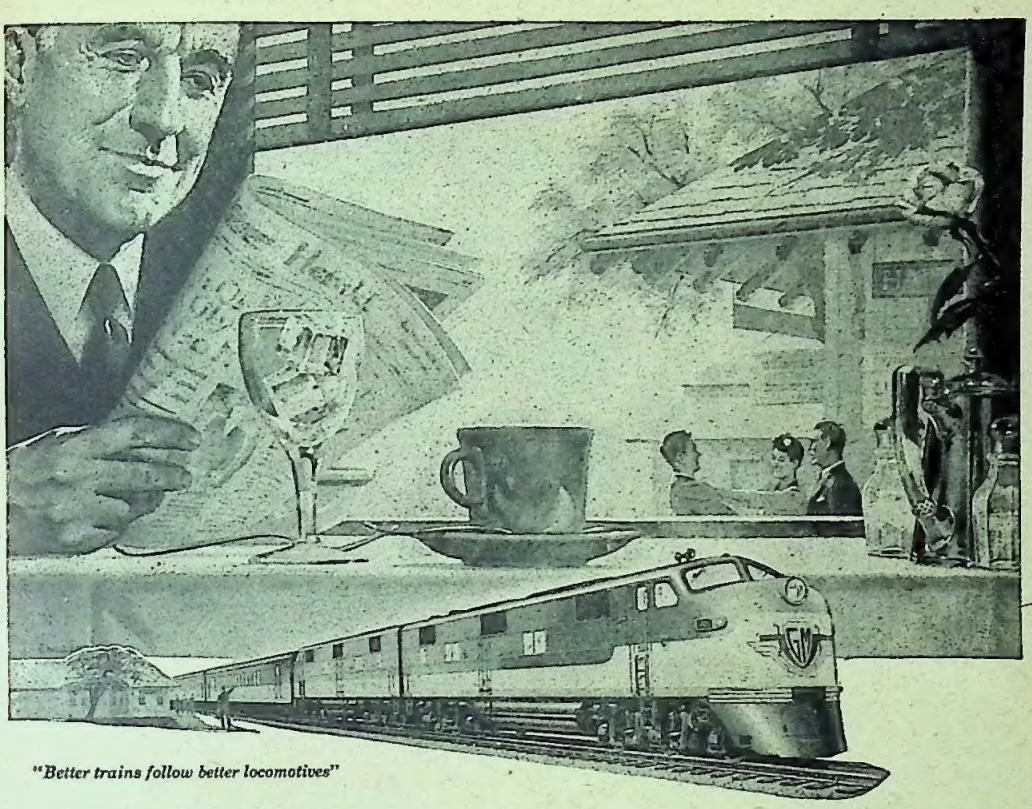
On July 31 of last year, Lima Locomotive Works, Inc., turned over to the French Supply Mission the first of one hundred eighty 2-8-2 steam locomotives which Lima is building for the rehabilitation of the French railway system.

Here the Belpareil, of Oslo, is ready to leave Weehawken, N. J., for France, completely loaded with a shipment of these especially designed locomotives.

LIMA LOCOMOTIVE WORKS INCORPORATED

Lima Locomotive Works, Incorporated

LIMA, OHIO



"Better trains follow better locomotives"

HIS COFFEE REMAINED CALM

It was almost as though the station itself were quietly gliding away from the train. The cup of coffee before him remained serenely unruffled.

Amazingly smooth, quiet starts and velveted stops are just some of the many new delights and comforts you get when riding behind a General Motors Diesel locomotive.

Fact is, the entire new era of super-smooth travel came in the wake of General Motors Diesels — they ushered in the modern streamlined idea — they inspired the luxurious, inviting new coaches.

They brought even more. Faster schedules became possible — turning transcontinental trips into one of the pleasures of travel — making delightful de luxe coach runs of what had been overnight trips. They began to set almost unbelievable "On-time" records — today meeting schedules 97% of the time.

Also, in the swift movement of heavy freight, as well as in passenger service, these new-day locomotives have established remarkably low operating and maintenance cost records together with a new conception of the movement of tonnage.

From these economies can come the capital for further modernization of the roads, thus broadening the concepts of transportation and returning benefits to those who use, operate or invest in America's railroads.

GM
GENERAL MOTORS
DIESEL POWER

ELECTRO-MOTIVE DIVISION
GENERAL MOTORS
LA GRANGE, ILL.

"Standard" Gauge?

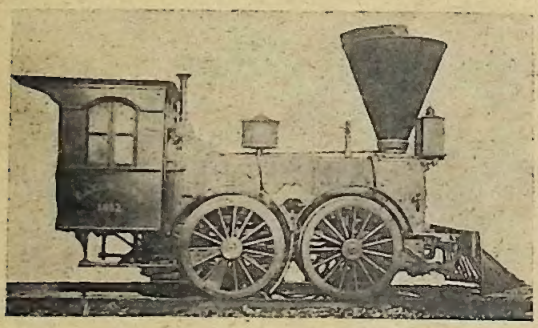
Railroad gauges throughout the world are as confused and varied as international politics. The United States and Great Britain have succeeded in adopting a 4 foot 8½ inch gauge, and much of Europe uses this same gauge; but Spain, Portugal, Eire and Russia do not. Spain and Portugal use a 5½ foot gauge. Eire has a gauge of 5¼ feet and Russia's is 5 feet. The longest stretch of track with one gauge in the world is the Russian line from Leningrad to Vladivostok.

Through lines in North Africa are standard gauge, as they are in Iran. In Iran's neighbor country, Iraq, however, two-thirds of the lines are one-meter gauge (which equals 3 feet 3⅜ inches) and the rest are standard gauge. Turkey's main line is standard gauge.

The railways of India are mainly one-meter gauge and 5½ foot gauge. In Burma, Indo-China, and Thailand, the one-meter gauge prevails. In China and Manchukuo the principal lines are standard gauge, while Japan's state-owned railways have a 3½ foot gauge.

Australia's railroads are owned by the individual states, and are famous for their confusion of 3½ foot, standard, and 5¼ foot gauges.

Although the United States steam railroads use a standard gauge, its trolley gauges vary. Some trolley lines used a 5 foot 2½ inch gauge deliberately designed to prevent the use of the track by steam roads desiring to transfer freight. Several western cities have narrow gauge trolley and even interurban lines.



Catawissa

Here is the ancient *Catawissa*, which was delivered to the Little Schuylkill Navigation Railroad & Coal Company in Philadelphia in February, 1833. A team hauled it to Port Clinton because the Schuylkill Canal was then seasonably closed to navigation. The company, later part of the Reading Railroad, ordered the *Catawissa* with a sister engine, the *Comet*, from Edward Bury of Liverpool, England, at $5000 each. They were the only Bury-built locomotives to run on any part of the Reading system.

The *Catawissa* made its first run on a trial round trip from Tamaqua to Port Clinton in 1833. The public was invited to witness another experimental trip that spring, but the engine was derailed along the line and horses pulled it to Tamaqua for repairs. Finally on April 9 it went into regular service between Tamaqua and Port Clinton, a distance of 22 miles. The *Catawissa* was sold to the American Dredging Company in 1871.

Ticket Machine

The National Cash Register Company's new ticket-selling machine, by means of which tickets are printed for any of over a hundred destinations merely by the pushing of buttons, is undoubtedly a very efficient business device, since origin and destination, fare, tax, and other data are entered on the ticket simultaneously. But it does take away a little of the old familiar thrill of buying a ticket and having it worked on with several stamps and pens by the clerk. A ticket purchase used to be a solemn formality, a fit prelude to an enjoyable trip; now it has become merely a buzz and a whirr, "Here's your ticket, sir."

The acme of cold efficiency in ticket sales is in the London subway's Piccadilly Station, where you drop any amount in coins into a slot, your proper ticket emerges, and your change drops out, all so fast that you hardly need pause. It's the old story again: There's no room for sentiment in streamlining.

Old Speed Record

The long distance speed record in 1877 belonged to the Canada Southern after a run of 111 miles in 109 minutes, from St. Thomas to Amherstburg, Mich. The occasion was the return of the Bishop of Michigan from Rome, when a special train was necessary to get him and the reception committee to Detroit in time for a public reception.

Only one stop was scheduled between St. Thomas and Amherstburg, and the preparations caused timorous passengers to purchase accident insurance at the ticket office. During the ride they divided their attention between their watches and their supper. "Before one could point out an object it had vanished, before a question could be asked and answered a mile had sped," one newspaper reported. "The rushing air against the windows sounded like a rainstorm."

After a four-minute halt at Charing Cross for water, the train went on "with the same overpowering velocity." Two sharp twists prefaced its arrival at the Amherstburg yard. This was the fastest run in America, beating by three minutes a previous run made by Commodore Cornelius Vanderbilt over the same line.

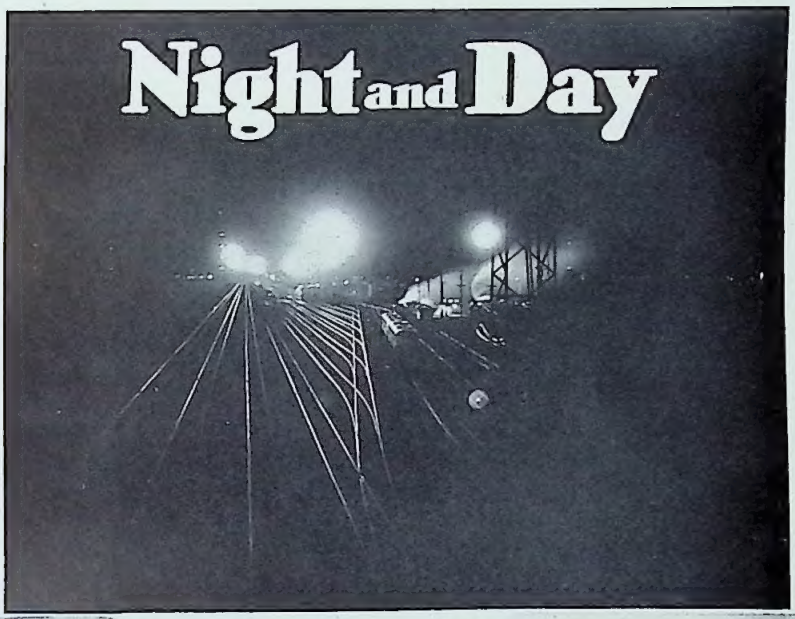
Diesel Kill You

Since the big Diesel locomotives that snake long freight trains about the country cost about half a million dollars, railroads are naturally concerned that they be properly handled. When the Milwaukee Road introduced a fleet on its Kansas City Division, John E. Bjorkholm, superintendent of motive power, assigned Walter W. Bates, chief traveling engineer, to the job.

"I'm placing you in full charge. In fact, I'm making you general manager of all Diesels on the Kansas City run," Bjorkholm said to emphasize the importance of the assignment.

Bates inquired, "Do I understand that everything I do will meet with your approval?"

Bjorkholm replied, "Hell, no! Only what you do right!"



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Close-up, two-way speaker unit

Modern Communications Speed Your Shipments

To cut additional hours from freight schedules, Rio Grande has installed a completely modern communications system at Roper Yard, Salt Lake City. Here all activities are closely co-ordinated by two-way speaker units, paging speakers, pneumatic message tubes, teletypes, and monitor speakers. These remarkable scientific developments play an increasingly important part in the fast, dependable handling of your freight shipments.

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Road freight Diesel contacts communication tower

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All provide complete air-conditioning, parlor-observation lounge, luxurious coaches, delicious meals, double-width windows, radio. For added travel enjoyment, ride the ZEPHYRS!

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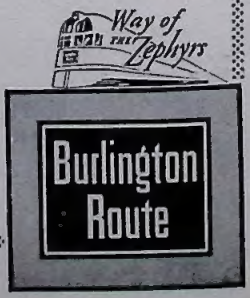
A. COTSWORTH, Jr., *Passenger Traffic Manager,* **Chicago, Illinois**

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